# C09D

## COATING COMPOSITIONS, e.g. PAINTS, VARNISHES OR LACQUERS; FILLING PASTES; CHEMICAL PAINT OR INK REMOVERS; INKS; CORRECTING FLUIDS; WOODSTAINS; PASTES OR SOLIDS FOR COLOURING OR PRINTING; USE OF MATERIALS THEREFOR (cosmetics A61K; processes for applying liquids or other fluent materials to surfaces, in general, B05D; staining wood B27K 5/02; glazes or vitreous enamels C03C; natural resins, French polish, drying-oils, driers, turpentine, per se, C09F; polishing compositions other than French polish, ski waxes C09G; adhesives or use of materials as adhesives C09J; materials for sealing or packing joints or covers C09K 3/10; materials for stopping leaks C09K 3/12; processes for the electrolytic or electrophoretic production of coatings C25D)

## Definition statement

*This place covers:*

Coating compositions, e.g. paints, varnishes, lacquers. This includes paints, varnishes or lacquers characterized by their physical nature or by the effects produced; examples of these are emulsion paints, powdery paints, thixotropic paints, antifouling or underwater paints, luminous paints, electrically-conductive paints, thermosensitive paints, paints providing wrinkle, crackle, orange-peel or multicolour effects, camouflage paints, radiation-absorbing paints, pearl essence, paints for electrophoretic applications or for flame-spraying, etc..

Coating compositions based on polysaccharides or their derivatives, based on rubbers or their derivatives, based on natural or unspecified macromolecular compounds or their derivatives, or based on organic macromolecular compounds, obtained by (or obtained otherwise than by) reactions only involving carbon-to-carbon unsaturated bonds. Coating compositions based on all synthetic polymers are included.

Coating compositions based on inorganic substances or on organic non-macromolecular compounds having at least one polymerisable carbon-to-carbon unsaturated bond.

Filling pastes.

Chemical paint or ink removers.

Inks, e.g. printing inks or writing inks.

Correcting fluids, e.g. fluid media for correction of typographic errors by coating.

Woodstains.

Pencil-leads, crayon compositions or chalk compositions.

Pastes or solids for colouring or printing, e.g. pigment pastes.

Use of materials for the above-mentioned compositions, including the use of anti-settling or anti-skinning agents or other additives.

Coating composition is a composition of a protective or decorative covering layer.

## Relationships with other classification places

Processes for applying liquids or other fluent materials to surfaces in general are classified in B05D.

Organic dyes or closely-related compounds for producing dyes, mordants or lakes per se, are classified in C09B.

Treatment of inorganic materials other than fibrous fillers used as pigments or fillers are classified in C09C.

Natural resins, French polish, drying-oils, driers, turpentine, per se, are classified in C09F.

Polymers as such are classified in C08F or C08G. Polymers compositions are classified in C08L. Coating compositions or adhesive compositions are classified in C09D and C09J respectively.

C09D and C09J are seen as "related fields" of C08L - this structure has implications on search and classification.

For classification:

- if the claims only pertain to a "coating composition...", only the C09D classification is given
- if the claims pertain to a composition as such and to a coating(For example, "composition for use as a coating..."), both the C09D classification and the corresponding C08L classification are given

For searching: Both C08L and C09D sub-classes should be searched, regardless of the wording of the claims about a coating, since documents classified in C08L may have information relating to the use of the composition for coating. In cases where a coating composition contains an organic non-macromolecular compound of interest but is not based on that compound, such a compound is classified in subclass C08K or as an additive in group C08J 3/00 (e.g. C08J 3/24 for crosslinking agents) or C09D 7/40. This may be in addition to classification in C09D 101/00-C09D 201/00 (see C-Sets below).

## References

### *Application-oriented references*

*Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:*

| | |
|---|---|
| Duplicating or marking methods; sheet materials for use therein | B41M 5/00 |
| Coating of mortars, concrete, artificial stone or natural stone | C04B 41/00 |
| Treatment of inorganic materials other than fibrous fillers used as pigments or fillers | C09C |
| Chemical coating e.g. by solid state diffusion of metallic or non-metallic elements into metallic material surfaces; coating with metallic material characterised only by the composition of the metallic material | C23C 30/00 |
| Textile-treating compositions | D06M |
| Dyeing or printing processes for textiles | D06P |
| Coating processes in photomechanical, e.g. lithographic, production of textured or patterned surfaces | G03F 7/16 |

### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Cosmetics | A61K |
| Processes for applying liquids or other fluent materials to surfaces, in general | B05D |
| Staining wood | B27K 5/02 |
| Layered products | B32B |

| | |
|---|---|
| Glazes or vitreous enamels | C03C |
| Organic macromolecular compounds | C08 |
| Organic dyes or closely-related compounds for producing dyes, mordants or lakes | C09B |
| Resins, French polish, drying-oils, driers, turpentine, per se | C09F |
| Polishing compositions other than French polish, ski waxes | C09G |
| Preparation of glue or gelatine | C09H |
| Adhesives or use of materials as adhesives | C09J |
| Materials for sealing or packing joints or covers | C09K 3/10 |
| Materials for stopping leaks | C09K 3/12 |
| Soaps or detergent compositions | C11D |
| Processes for the electrolytic or electrophoretic production of coatings | C25D |
| Paper-making | D21 |
| Photosensitive materials | G03F 7/004 |
| Conductors, insulators | H01B |

## Special rules of classification

References:

- References A61K, B05D, B27K 5/02, C03C, C09F, C09G, C09J, C09K 3/10, C09K 3/12, and C25D are non-limiting in the subclass C09D. CPC will be updated/corrected once this inconsistency in IPC is resolved."

Coating composition:

- In this subclass, coating compositions are classified on the basis of the film-forming compound, physical nature or effects produced.
- When the film forming compound is a specified organic polymer, classification is given in C09D 101/00 - C09D 201/00.
- When the film forming compound is a specified inorganic polymer, classification is given in C09D 1/00. When the inorganic coating composition includes an additive, classification is given in C09D 7/40 – C09D 7/70 and C08K is given as additional symbol.
- When the coating composition is characterised by the physical nature or the effects produced, classification is given in C09D 5/00 - C09D 5/4496, C09D 7/40 - C09D 7/70 and C08K (additional symbol).
- Coating compositions containing specific organic macromolecular substances are classified according to the macromolecular substance.
- Coating compositions comprising specific macromolecular substances with other macromolecular substances and/or non-macromolecular substances are also classified under the form of C-Sets as explained below.
- Coating compositions containing a single polymer and an inorganic or non-macromolecular organic additive as compounding agent are not classified in C08K, but in the C09D subclass together with the corresponding symbol in C08K in the form of C-Sets as explained below (i.e. #C9De).

Allocation of indexing codes:

- Orthogonal Indexing Codes C08L 2201/00 - C08L 2555/86 are used to specify the role, applications and the characteristics of the polymer compositions.
- Orthogonal Indexing codes may be allocated in conjunction with combination-set symbols. In these situations, allocations of specific indexing codes are indicated with the related C-Sets in C-Sets classification.

**Combination sets (C-Sets):**

In this subclass, C-Sets classification is applied to the following groups, listed in the table below, if the document discloses a pertinent combination of technical features that cannot be covered by the allocation of a single symbol. The fourth column of the table indicates the place where the detailed information about the C-Sets construction and the associated syntax rules can be found, in the definition section "Special rules of classification".

| C-SETS ID | BASE SYMBOLS | SUBSEQUENT SYMBOLS | C-SETS FORMULA; LOCATION OF C-SETS RULES |
|---|---|---|---|
| #C9Da | C09D 4/00 | C08F 210/00-C08F 246/00 (excluding breakdown indexing codes) | (C09D 4/00, C08F); a coating composition based on at least one monomer; see C09D 4/00 |
| #C9Db | C09D 4/06 | C08F 251/00-C08F 291/185 | (C09D 4/06, C08F); a coating composition based on at least one monomer and at least one polymer; see C09D 4/06 |
| #C9Dc | C09D 101/00-C09D 201/00 | C08L 1/00-C08L 101/16 (excluding breakdown indexing codes) | (C09D, C08L, …); a coating composition of two or more polymers; see C09D 101/00 |
| #C9Dc(Si) | C09D 101/00-C09D 201/10(excluding C09D 183/02-C09D 183/16) | C08L 83/02-C08L 83/16, C08L 83/00 | (C09D, C08L 83/02-C08L 83/16, C08L 83/00, ...); a coating composition comprising one non Si-based polymer in majority and two or more Si-based polymers; see C09D 101/00 |
| #C9Dc(Si)2 | C09D 183/02-C09D 183/16 | C08L 83/00 and optionally C08L 1/00-C08L 101/16 (excluding C08L 83/02-C08L 83/16 and excluding breakdown indexing codes) | (C09D 183/02-C09D 183/16, C08L 83/00, ..., C08L, ...); a coating composition comprising one Si-based polymer in majority with one or more Si-based polymers and optionally non-Si-based polymer(s); see C09D 183/00 |
| #C9De | C09D 101/00-C09D 201/00 | C08K 3/00-C08K 13/08 (excluding breakdown indexing codes) | (C09D, C08K, ...); a coating composition of one polymer with additive(s); see C09D 101/00 |
| #C9Df | C09D 101/00-C09D 201/00 | C08L 1/00-C08L 101/16 (excluding breakdown indexing codes), C08K 3/00-C08K 13/08 (excluding breakdown indexing codes) | (C09D, C08L, ..., C08K, ...); a coating composition of two or more polymers with additive(s); see C09D 101/00 |

| | | | |
|---|---|---|---|
| #C9Df (Si) | C09D 101/00-C09D 201/00 (excluding C09D 183/02-C09D 183/16) | C08L 83/02-C08L 83/16, C08L 83/00, C08K 3/00-C08K 13/08 (excluding breakdown indexing codes) | (C09D, C08L 83/02-C08L 83/16, C08L 83/00, ..., C08K, ...); a coating composition comprising one non Si-based polymer in majority and two or more Si-based polymers and additive(s); see C09D 101/00 |
| #C9Df (Si)2 | C09D 183/02-C09D 183/16 | C08L 83/00 and optionally C08L 1/00-C08L 101/16 (excluding C08L 83/02-C08L 83/16 and excluding breakdown indexing codes), C08K 3/00-C08K 13/08 (excluding breakdown indexing codes) | (C09D 183/02-C09D 183/16, C08L 83/00, ..., C08K, ...); a coating composition comprising one Si-based polymer in majority with one or more Si-based polymers and optionally non-Si-based polymer(s) and additive(s); see C09D 183/00 |
| #C9Dz | C09D 101/00-C09D 201/00 | C08L 2666/00-C08L 2666/26 | (C09D, C08L 2666/00-C08L 2666/26); a coating compositions of two or more polymers; see C09D 101/00 |

The specific C-Sets rule is located at only one place of the base symbol in the section "Special rules of classification" in the definition. If the C-Sets rule is applicable to all groups of a subclass, it is located at the subclass level only. If the same C-Sets rule is applicable to multiple groups or subgroups within the same subclass, the C-Sets rule is placed at the highest group or subgroup of the multiple groups.

In this subclass, all exemplified compositions should be classified as separate C-Sets. In the absence of examples, at least one C-Set is given on the basis of sufficient disclosure in the document.

## Glossary of terms

*In this place, the following terms or expressions are used with the meaning indicated:*

| | |
|---|---|
| Aliphatic radical | An acyclic or a non-aromatic carbocyclic carbon skeleton which is considered to be terminated by every bond to: an element other than carbon; a carbon atom having a double bond to one atom other than carbon; an aromatic carbocyclic ring or a heterocyclic ring. |
| Use of materials for coating compositions | The use of known or new polymers or products. |
| Rubber | Amorphous elastic material including: natural or conjugated diene rubbers; or rubber in general (for a specific rubber, other than a natural rubber or a conjugated diene rubber, see the group provided for coating compositions based on such macromolecular compounds. |
| Filling pastes | Materials used to fill up the holes or cavities of a substrate in order to smooth its surface prior to coating. |

## Synonyms and Keywords

*In patent documents, the following abbreviations are often used:*

| | |
|---|---|
| ABS | Acrylonitrile-butadiene-styrene copolymer |
| AIBN | Azoisobutyronitrile (initiator) |
| AMMA | Acrylonitrile-methyl methacrylate copolymer |
| AMPS | Acrylamidomethylpropanesulfonic acid |
| BR | Butadiene rubber |
| CTFE | Chloro-trifluoroethylene |
| DVB | Divinylbenzene |
| EAA | Ethylene-acrylic acid copolymer |
| EPDM | Ethylene-propylene-diene-monomer |
| EPR | Ethylene-propylene rubber |
| EVA | Ethylene-vinyl acetate |
| EVOH | Ethylene-vinyl alcohol copolymer |
| HDPE | High-density polyethylene, d is greater than 0.95, homopolymer |
| HEMA | Hydroxyethyl methacrylate |
| LLDPE | Linear low-density polyethylene, significant comonomer content |
| LDPE | Low density polyethylene, prepared by radical process |
| PAN | Polyacrylonitrile |
| PEEK | Polyetherether ketone, also named polyetheresterketone |
| PEI | Polyethylenimine |
| PMMA | Polymethyl methacrylate |
| PPE | Polyphenylene ether |
| PPO | Polyphenylene oxide or polypropylene oxide |
| PPS | Polyphenylene sulphide |
| PTFE | Polytetrafluoroethylene |
| PUR | Polyurethane |
| PVA | Polyvinyl alcohol or polyvinyl acetate |
| PVAC | Polyvinyl acetate |
| ULDPE, VLDPE | Very low density polyethylene, d is less than 0.89, high comonomer content |

# C09D 1/00

## Coating compositions, e.g. paints, varnishes or lacquers, based on inorganic substances

## Definition statement

*This place covers:*

Coating compositions where the binder or continuous phase is an inorganic compound.

Coating compositions based on inorganic particles, that may be linked through surface modification.

Coating compositions based on alkali metal silicates, cement or lime, where organic additive may be present.

## References

### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| High temperature resistant paints | C09D 5/18 |
| Coating with polysilicates | C09D 183/02 |
| Compositions of mortars | C04B |
| Macromolecular compounds containing organic and inorganic sequences | C08G 83/001 |
| Coating of macromolecular substances with compositions not containing macromolecular substances | C08J 7/06 |
| Chemical coating by decomposition of liquid compounds | C23C 18/00 |
| Chemical coating by decomposition of solid compounds | C23C 20/00 |
| Coating starting from inorganic powder | C23C 24/00 |
| Record carrier comprising one or more layers of magnetisable material homogeneously mixed with a bonding agent | G11B 5/68 |

# C09D 4/00

## Coating compositions, e.g. paints, varnishes or lacquers, based on organic non-macromolecular compounds having at least one polymerisable carbon-to-carbon unsaturated bond {; Coating compositions, based on monomers of macromolecular compounds of groups C09D 183/00 - C09D 183/16}

## Definition statement

*This place covers:*

Coating compositions for coatings, paints, varnishes etc. based on non-macromolecular compounds that are able to be polymerized during the film formation step (in-situ polymerization) in the absence of a pre-formed polymer.

Any composition comprising at least one polymerisable ethylenically unsaturated monomer or oligomer and able to be polymerized by means of the known methods leading, during the film formation, to macromolecular compounds of C08F 210/00-C08F 246/00 or coating compositions based on non-macromolecular compounds that are able to react, during the film formation, to form macromolecular compounds of groups C08G 77/00 - C08G 77/62.

## References

### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Coatings based on macromolecular compounds | C09D 101/00 - C09D 201/00 |

## Special rules of classification

Classification guidance:

- In the case coating compositions based on non-macromolecular compounds that are able to react, during the film formation, to form macromolecular compounds of groups C08G 77/00 - C08G 77/80 (e.g. by hydrolysis condensation of siloxane-type of monomers), C09D 4/00 is given together with a single symbol taken from groups C08G 77/00 - C08G 77/62 to indicate the nature of the polymer formed and a single symbol taken from groups C09D 183/02 - C09D 183/16 to indicate the nature of the coating composition which is assumed to be formed by the in situ polymerization of these monomers.
- A coating composition comprising phenyltriethoxysilane and aminopropyl trimethoxy silane in minority is classified in C09D 4/00 together with C08G 77/26 and in C09D 183/08.

**Combination sets (C-Sets):**

**C-Sets statement: #C9Da**

- In group C09D 4/00, the coating compositions based on organic non-macromolecular compounds having at least one polymerizable carbon-to-carbon unsaturated bonds are classified in the form of C-Sets.

In #C9Da, the base symbol, representing coating composition, is taken from the group C09D 4/00, whereas the subsequent symbol representing a representative monomer or a monomer in majority taken from the groups C08F 210/00 - C08F 246/00.

- In addition, a separate C-Set representing the copolymer that is formed according to the monomers of C08F must also be given.

**C-Sets syntax rules:**

- Each C-Set shall contain exactly two symbols.
- Duplicate symbols are not allowed in these C-Sets.
- Breakdown indexing codes are not allowed as either base or subsequent symbols.
- The order of symbols in these C-Sets is relevant as it reflects the coating composition and the monomer.

**C-Sets examples:**

- #C9Da: A coating composition consisting of trimethylolpropane trimethacrylate is classified as (C09D 4/00, C08F 222/1006).
- #C9Da: A coating composition comprising methyl methacrylate in majority and ethylene glycol dimethacrylate in minority is classified as (C09D 4/00, C08F 220/14) and as (C08F 220/14, C08F 222/102) for the resulting copolymer.

**C-Sets Searches:**

C-Sets search queries may be made according to C-Sets classification rules described in C09D and related subclasses. In addition, #C8Lz, #C9Dz, and #C9Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

## Glossary of terms

*In this place, the following terms or expressions are used with the meaning indicated:*

| | |
|---|---|
| Ethylenically unsaturated monomer | monomer comprising a carbon-carbon unsaturated bond |

# C09D 4/06

## {Organic non-macromolecular compounds having at least one polymerisable carbon-to-carbon unsaturated bond} in combination with a macromolecular compound other than an unsaturated polymer of groups C09D 159/00 - C09D 187/00

## Definition statement

*This place covers:*

Coating compositions for coatings, paints, varnishes etc. based on non-macromolecular compounds that are able to be polymerized during the film formation step (in-situ polymerization) in the presence of a pre-formed polymer.

This includes any composition comprising at least one polymerisable ethylenically unsaturated monomer or oligomer with at least another polymer and able to be polymerized by means of the known methods leading to macromolecular compounds of C08F 251/00 - C08F 291/185.

## Special rules of classification

**C-Sets classification:**

**C-Sets statement: #C9Db**

- In group C09D 4/06 the coating compositions based on organic non-macromolecular compounds having at least one polymerizable carbon-to-carbon unsaturated bonds in combination with a macromolecular compound are classified in the form of C-Sets.
- In #C9Db , the base symbol, representing coating composition, is taken from the group C09D 4/06, whereas the subsequent symbol representing the resulting graft copolymer in accordance with C08F is taken from the groups C08F 251/00 - C08F 291/185.
- A separate C-Set representing the graft copolymer that is formed according to the monomers of C08F must also be given.

**C-Sets syntax rules:**

- Each C-Set shall contain exactly two symbols.
- Duplicate symbols are not allowed in these C-Sets.
- Breakdown indexing codes are not allowed as either base or subsequent symbols.
- The order of symbols in these C-Sets is relevant as it reflects the coating composition and the grafted copolymer.

**C-Sets examples:**

- #C9Db : A coating composition comprising methyl methacrylate and polyvinyl chloride polymer is classified as (C09D 4/06, C08F 259/04) and (C08F 259/04, C08F 220/14) for the resulting graft copolymer.
- #C9Db : A coating composition comprising methyl methacrylate (C08F 220/14) and a saturated polyester polymer is classified as (C09D 4/06, C08F 283/002) and (C08F 283/002, C08F 220/14) for the resulting graft copolymer.

**C-Sets searches:**

C-Sets search queries may be made according to C-Sets classification rules described in C08L and related subclasses. In addition, #C8Lz, #C9Dz, and #C9Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

# C09D 5/00

## Coating compositions, e.g. paints, varnishes or lacquers, characterised by their physical nature or the effects produced {(electrically insulating plastics, resins or waxes H01B 3/30)}; Filling pastes

### Definition statement

*This place covers:*

Priming paints

Reflecting or signal paints or anti-reflective coatings

Temporary coatings

Emulsion paints

Powdery paints

Thixotropic paints

Artists' paints

Anti-corrosive paints

Paints containing biocides, e.g. fungicides, insecticides or pesticides

Antifouling paints or under-water paints

Fireproof paints

Temporary coatings strippable as coherent films

Luminous paints

Magnetisable or magnetic paints or lacquers

Electrically-conducting

Thermosensitive paints

Camouflage paints

Radiation-absorbing

Filling

Pearl essence

Paints containing free metal

Anti-fingerprint paints

Anti-staining paints

Anti-graffiti paints

### Relationships with other classification places

Coating compositions that are characterized by the polymeric binder are to be classified in groups C09D 101/00 - C09D 201/00.

## References

### *Limiting references*

*This place does not cover:*

| | |
|---|---|
| Electrically insulating plastics, resins or waxes | H01B 3/30 |

### *Application-oriented references*

*Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:*

| | |
|---|---|
| Wash primer, as a combination of a conversion coating and a polymeric binder | C23C 22/00 |
| Apparatus or processes specially adapted for applying magnetic films to substrates, the magnetic material being applied in the form of particles, e.g. by serigraphy, i.e. forming thick magnetic films and precursors therefor, e.g. magnetisable pastes, inks, glass frits. | H01F 41/16 |

### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Catalytic coatings | B01J 37/02 |
| Methods for preventing fouling in general | B08B 17/02 |
| Painting or artistic drawing, not otherwise provided for preserving paintings; Surface treatment to obtainspecial artistic surface effects or finishes | B44D |
| Preventing hull fouling | B63B 59/04 |
| Aerosol compositions | C09K 3/30 |
| Luminescent compositions | C09K 11/00 |
| Chemical surface treatment of metallic material by reaction of the surface with a reactive liquid, leaving reaction products of surface material in the coating, e.g. conversion coatings | C23C 22/00 |
| Paints based on inorganic materials for electrophoretic applications; Substrates; Pretreatment; Process features | C25D 13/00 |
| Anti-reflection coating on optical elements | G02B 1/11 |
| Optical systems with means for preventing surface fouling | G02B 27/0006 |
| Charge control agents for toners | G03G 9/097 |
| Protection against X-, gamma-, or corpuscular radiation | G21F |
| Conductive materials | H01B 1/00 |
| Magnetisable or magnetic materials | H01F 1/00 |
| Screening against electric and magnetic fields | H05K 9/00 |

## Special rules of classification

Further subdivisions:

C09D 5/002

When the priming paint relates to an anti-corrosive paint on a metallic substrate.

C09D 5/08 or C09D 5/10 take precedence over this group.

C09D 5/008

These coatings can be easily removed by washing, e.g. with an alkaline composition. When a coating needs to be removed with a stripping composition according to C09D 9/00 classification in C09D 5/008 is not appropriate.

When the temporary coating can be removed as a coherent film.

C09D 5/20 takes precedence over this group.

C09D 5/02

Powder slurries are classified in this group and not in C09D 5/03.

C09D 5/027

Relates to in-can preservation of the (aqueous) emulsion paint.

C09D 5/035

When powder coatings are characterized by the colouring agent, or the special effect of the produced film.

C09D 5/032 takes precedence over this group.

C09D 5/04

Thixotropic paints are used on vertical surfaces, where sagging should be avoided. A thixotropic fluid displays a decrease in viscosity over time at a constant shear rate. The thixotropic effect can be obtained by certain clays that also have an anti-settling effect (C09D 7/45).

In contrast a shear thinning or structurally viscous fluids display a decreasing viscosity with increasing shear rate.

C09D 5/14

The paints provide an anti-microbial effect of the coated film. When the paint prevents the occurrence of contamination visually noticeable on its surface C09D 5/16 takes precedence over this group.

C09D 5/16

The surface fouling is a visual fouling.

C09D 5/165

Paints containing hydrolysable groups.

C09D 5/1643 takes precedence over this group.

C09D 5/1656:

Paints characterised by the film-forming substance.

C09D 5/1637 takes precedence over this group.

C09D 5/36

Pearl essence coatings provide a reflective and interference effect.

C09D 5/38

Coatings having a metallic effect without colour interference.

C09D 5/44

The groups C09D 5/4403 - C09D 5/4476 relating to paints based on a specified

film-forming polymer or mixture of polymers take precedence over the groups

C09D 5/448 - C09D 5/4496 relating to paints characterised by other features.

### Glossary of terms

*In this place, the following terms or expressions are used with the meaning indicated:*

| | |
|---|---|
| Thixotropy | A thixotropic fluid displays a decrease in viscosity over time at a constant shear rate. |
| Wash primer | A reactive primer for metallic substrates originally based on phosphoric acid, polyvinylbutyral and optionally zinc chromate (DIN 55945: 1999-07). |

## C09D 5/16

### Antifouling paints; Underwater paints

### Glossary of terms

*In this place, the following terms or expressions are used with the meaning indicated:*

| | |
|---|---|
| Antifouling paint | A paint used to prevent barnacles and other marine organisms from growing on the immersed surfaces of man-made structures such as ship hulls, pillars, fishnets, and buoys. The antifouling effect can be obtained by the use of a biocide or a specific binder, or by the application of any other substance such as a non-adherent coating. |

## C09D 5/22

### Luminous paints {(luminescent compositions C09K 11/00)}

### Definition statement

*This place covers:*

Paints showing spontaneous emission of radiation originating from an electronically or vibrationally excited species not in thermal equilibrium with its environment.

### Relationships with other classification places

Luminescent materials per se are covered by C09K 11/00.

### References

#### *Limiting references*

*This place does not cover:*

| | |
|---|---|
| Other coatings or paints which are not luminescent | C09D 5/00 |

### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Luminescent materials per se | C09K 11/00 |

## Special rules of classification

This group deals with the application of luminescent materials in paints. Usually the respective luminescent material should be classified additionally in C09K 11/00 or in the appropriate subgroup.

# C09D 7/00

## Features of coating compositions, not provided for in group C09D 5/00 (driers C09F 9/00); Processes for incorporating ingredients in coating compositions

## Definition statement

*This place covers:*

Diluents or solvents for paints.

Use of compounds as thickening agents; as gloss-reducing agents

Use of organic pigments or dyes;

Paint detackifiers or coagulants, e.g. for the treatment of oversprays in paint spraying installations

Use of compounds as anti-settling agents; as anti-skinning agents; as levelling agents

Other non-macromolecular, inorganic or organic additives;

macromolecular additives

Additives characterised by their particle size or by their shape;

Special processes for incorporating ingredients e.g. incorporating colour pastes in a base paint.

## References

### *Limiting references*

*This place does not cover:*

| | |
|---|---|
| Paint driers | C09F 9/00 |

### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Coating compositions based on graft polymers grafted onto inorganic materials | C09D 151/10 |
| Production of microspheres | B01J 13/00 |
| Surface coated colloidal silica sols | C01B 33/149 |
| Organic dyes | C07C, C09B, C09D 5/00 |
| Compositions of graft polymers grafted onto inorganic materials | C08L 51/10 |
| Treatment of inorganic pigments or fillers | C09C |
| Use of substances as emulsifying, wetting or dispersing agents | C09K 23/00 |

Further subdivisions:

C09D 7/42

The use of gloss reducing or matting agent.

Anti-reflective coatings are classified in C09D 5/006.

C09D 7/41

The use of organic pigment or dyes.

Inorganic pigments are classified in C09D 7/61.

## Special rules of classification

C09D 7/43 and C09D 7/40 are combined with ICO-codes C08K and C08L to further specify the "thickening agent" respectively the "other additive" in the coating composition.

## Glossary of terms

*In this place, the following terms or expressions are used with the meaning indicated:*

| | |
|---|---|
| Anti-floating, anti-flooding agent | Agent that hinders the vertical and horizontal separation of pigments with different densities and surface activities |
| Anti-settling agent | An agent preventing the particles in a paint composition to coagulate and to form a sediment |
| Anti-skinning agent | Agent that counteracts the tendency of drier containing paints to form an insoluble surface skin on contact with atmospheric oxygen and promotes uniform drying and hinders wrinkling; Suppresses skin formation on air-drying alkyd paints in the can, particularly after the can has been opened. |
| Dispersion agent | Agent that counteracts the settling tendency of pigments, especially those with high densities, also anti-settling agent |
| Gloss reducing agent | Matting or flattening agent |
| Levelling agent | Agent that promotes the formation of smooth, uniform coating films from uneven, patterned layers of wet paint |
| Wetting agent | Agent that promotes the dispersion of the pigments in the binders and counteracts the flocculation tendency of particles that are insufficiently wetted |

# C09D 9/00

## Chemical paint or ink removers (fluid media for correction of typographical errors by coating C09D 10/00)

## References

### *Limiting references*

*This place does not cover:*

| | |
|---|---|
| Fluid media for correction of typographical errors by coating | C09D 10/00 |

# C09D 10/00

## Correcting fluids, e.g. fluid media for correction of typographical errors by coating {(correcting errors by overprinting B41J 29/36)}

### Definition statement

*This place covers:*

Correcting fluids, i.e. liquid covering of ink, usually in the same colour as the background.

### References

#### *Limiting references*

*This place does not cover:*

| | |
|---|---|
| Devices, non-fluid media or methods for correcting errors by overprinting | B41J 29/36 |

# C09D 11/00

## Inks

### Definition statement

*This place covers:*

Inks, i.e. pigmented liquids, e.g. printing inks, writing inks, sympathetic, colour changing or electrically conductive inks

### Relationships with other classification places

In cases where a coating composition contains an organic non-macromolecular compound but is not based on that compound, and such a compound is of interest, classification could be made in subclass C08K or as an additive in group C08J 3/00, e.g. C08J 3/24 for crosslinking agents, or C09D 7/40.

### References

#### *Limiting references*

*This place does not cover:*

Please refer to the References at Subclass level.

| | |
|---|---|
| Printing on surfaces and processes for print | B41M 1/00 |
| Printing processes to produce particular kinds of printed work, e.g. Braille printing, security printing | B41M 3/00 |

#### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

Please refer to the References at Subclass level.

| | |
|---|---|
| Pigment pastes | C09D 17/00 |
| Use of substances as emulsifying, wetting, dispersing or foam-producing agents | C09K 23/00 |

Further subdivisions:

C09D 11/50

In this group also fluorescent and phosphorescent inks are classified.

This group is used in combination with C09D 11/30 and C09D 11/02-C09D 11/14.

C09D 11/36:

This group takes precedence over C09D 11/30.

C09D 11/52:

Classification in this group is given for all conductive inks.

It is additionally given in connection with groups of C09D 11/30-C09D 11/40 and C09D 11/02-C09D 11/20, e.g. for a conductive inkjet ink comprising silver particles the groups C09D 11/52 and C09D 11/322: For silver particle, which are insoluble are therefore regarded as pigment, this symbol is given.

C09D 11/037

This symbol is given for pigments and dyes.

C09D 11/04-C09D 11/14

Printing inks characterized by the chemical nature of the binder.

C09D 11/17

e.g. fluorescent markers

## C09D 11/36

### based on non-aqueous solvents

### Glossary of terms

*In this place, the following terms or expressions are used with the meaning indicated:*

| | |
|---|---|
| Based on non-aqueous solvents | The vehicle of the ink contains no water at all or just traces and is based e.g. on hydrocarbon solvents. |

## C09D 11/38

### characterised by non-macromolecular additives other than solvents, pigments or dyes

### Glossary of terms

*In this place, the following terms or expressions are used with the meaning indicated:*

| | |
|---|---|
| Non-macromolecular additive | Any monomer or compound, other than a standard component such as a solvent, pigment, or dye, that is added to ink and that is a characterising feature of the claimed invention. Includes photoinitiators. |

## C09D 11/50

### Sympathetic, colour changing or similar inks

#### Glossary of terms

*In this place, the following terms or expressions are used with the meaning indicated:*

| | |
|---|---|
| Sympathetic ink | Ink that changes its spectral properties by heat treatment, chemical treatment, etc. Dyes can change colour during e.g. heat treatment (e.g. leuco dyes or thermochromic colorants) or can turn from invisible to visible. |

## C09D 13/00

### Pencil-leads; Crayon compositions; Chalk compositions

#### Definition statement

*This place covers:*

Graphite writing instrument; coloured wax; soft compact calcite

## C09D 15/00

### Woodstains

#### Definition statement

*This place covers:*

Compositions for staining of wood containing a network forming binder. The compositions are intended to treat the surface and not the entire bulk of the wood.

#### References

##### *Limiting references*

*This place does not cover:*

| | |
|---|---|
| Dying or staining of wood into the bulk of the wood by impregnation | B27K 5/02 |

## C09D 17/00

### Pigment pastes, e.g. for mixing in paints (artists' paints C09D 5/06)

#### Definition statement

*This place covers:*

Pigment pastes in aqueous or organic medium.

#### References

##### *Limiting references*

*This place does not cover:*

| | |
|---|---|
| Artists' paints | C09D 5/06 |
| Process features in the making of dye stuff preparations | C09B 67/00 |

Further subdivisions:

C09D 17/001

In aqueous medium C09D 17/003 or C09D 17/004 take precedence over this group.

C09D 17/002

In organic medium C09D 17/003 or C09D 17/004 take precedence over this group.

# C09D 101/00

## Coating compositions based on cellulose, modified cellulose, or cellulose derivatives

### Definition statement

*This place covers:*

Coating compositions based on polysaccharides, polysaccharides with added chains, and by-products of polysaccharides corresponding to the following groups used to classify the polysaccharides themselves:

C08B 1/00-C08B 1/14

C08B 5/00-C08B 5/14

C08B 7/00

C08B 9/00-C08B 9/06

C08B 11/00-C08B 11/22

C08B 13/00-C08B 13/02

C08B 15/00-C08B 15/10

C08B 16/00

C08B 17/00-C08B 17/06..

### Relationships with other classification places

Covalently or ionically crosslinked gels are classified in C08B.

A composition based on cellulose, modified cellulose or cellulose derivatives is classified in C08L.

Adhesive compositions based on cellulose, modified cellulose or cellulose derivatives are classified in C09J.

**Multiple classification**

Please refer to the comments provided for the CPC Definitions for C08B, as well as for the corresponding C08B main groups.

### References

#### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Cellulose or derivatives thereof per se | C08B 1/00 - C08B 17/06 |
| Compositions comprising cellulose or cellulose derivative | C08L 1/00 - C08L 1/32 |

| | |
|---|---|
| Composition based on lignin-containing materials, e.g. lignin, cork, lignocellulose or wood | C08L 97/00 |
| Composition of natural macromolecular compounds or of derivatives thereof not provided for in groups C08L 89/00 - C08L 97/00, e.g. flours | C08L 99/00 |
| Adhesive or binder composition comprising cellulose or cellulose derivative | C09J 101/00 - C09J 101/32 |

## Special rules of classification

Last place priority rule:

Within each group of this subclass, in the absence of an indication to the contrary, classification is made in the last appropriate place.

Classification guidance:

- The subject-matter disclosed in both the claims and the examples of a patent document is to be classified.
- Coating compositions containing a single polymer and an inorganic or non-macromolecular organic additive as compounding agent are not classified in C08K, but in the C09D subclass together with the corresponding symbol in C08K in the form of C-Sets as explained below (i.e. #C9De).
- Coating compositions of cellulose or derivatives thereof in solution, together with other macromolecular compounds, or together with an inorganic or non-macromolecular organic additive are considered as a coating composition and are thus classified according to the rules of C09D.

**C-Sets classification:**

**C-Sets statement: #C9Dc, #C9De, and #C9Df**

- In groups C09D 101/00 - C09D 201/10 coating composition based on polymers, and when present non-macromolecular additive(s), are classified in the form of C-Sets according to the relative proportions by weight percentage of the macromolecular constituents.
- In #C9Dc, the base symbol, representing the polymer in majority, is taken from the groups C09D 101/00 - C09D 201/10, whereas the subsequent symbol(s) representing the polymer in minority is (are) taken from the groups C08L 1/00 - C08L 101/16.
- In #C9De, the base symbol, representing the polymer, is taken from the groups C09D 101/00 - C09D 201/10, whereas the subsequent symbol(s) representing compound(s) used as an additive(s), is (are) taken from the groups C08K 3/00 - C08K 13/08.
- In #C9Df, the base symbol, representing the polymer in majority, is taken from the groups C09D 101/00 - C09D 201/10, whereas the subsequent symbol(s) representing the polymer(s) in minority is (are) taken from the groups C08L 1/00 - C08L 101/16 and further subsequent symbols representing compound(s) used as an additive(s), is (are) taken from the groups C08K 3/00 - C08K 13/08.
- In addition to C-Set #C9Dc, #C9De or #C9Df, a single symbol is given according to the macromolecular constituent present in the highest proportion.
- If all the constituents are present in equal proportions, the composition is classified according to each of these constituents.
- In the case that several polymers can be in majority, separate C-Sets should be made based on each polymer in majority and its component(s) in minority.
- Attention is drawn to coating compositions comprising, next to a major macromolecular compound according C09D 101/00 - C09D 201/00 (excluding C09D 183/02 - C09D 183/16), two or more Si-based polymers in accordance with C08G 77/00 which are classified according to #C9Dc(Si) or #C9Df(Si) as explained below.
- Orthogonal indexing codes C08L 2201/00 - C08L 2555/86 must also be allocated as separate symbols when applicable.

**C-Sets syntax rules:**

- C-Set of #C9Dc and #C9De shall contain at least two symbols.
- C-Set of #C9Df shall contain at least three symbols.
- Duplicate subsequent symbols are allowed in these C-Sets for subsequent symbols only.
- Breakdown indexing codes are not allowed as either base or subsequent symbols.
- The order of symbols in these C-Sets is relevant as it reflects the relative amounts of each polymer, C09D always appears as base symbol.
- In #C9Df, the symbols for the additive(s) always appear(s) after the symbols for the polymers regardless their relative amounts.

**C-Sets examples:**

- #C9Dc: A coating composition comprising polymethyl methacrylate (C09D 133/12) in majority and polyvinyl chloride (C08L 27/06) is classified as the C-Set (C09D 133/12, C08L 27/06).
- #C9Dc: A coating composition consisting of 60 wt.% of microcrystalline cellulose (C09D 101/04) and 40 wt.% of maltodextrin (C08L 3/02) is classified as (C09D 101/04, C08L 3/02).
- #C9De: A coating composition comprising polymethyl methacrylate (C09D 133/12) in majority and a triaryl phosphate fire retardant (C08K 5/523) is classified as the C-Set (C09D 133/12, C08K 5/523).
- #C9De: A coating composition consisting of carboxymethyl cellulose and glycerol (plasticiser) is classified as (C09D 101/286, C08K 5/053) and in C08K 5/0016.
- #C9Df: A coating composition comprising polymethyl methacrylate in majority (C09D 133/12), polyvinyl chloride (C08L 27/06) and a triaryl phosphate fire retardant (C08K 5/523) is classified as the C-Set (C09D 133/12, C08L 27/06, C08K 5/523).

**C-Sets statement: #C9Dc(Si), #C9Df(Si)**

#C9Dc(Si), and #C9Df(Si) are a special use of #C9Dc and #C9Df and are applied for a composition comprising two or more Si-based polymers in accordance with C08G 77/00.

- In groups C09D 101/00 - C09D 201/10, the feature relating to a coating composition comprising one non Si-based polymer in majority with two or more Si-based polymers is classified in the form of C-Sets.
- In #C9Dc(Si), the base symbol, representing the polymer in majority, is taken from the groups C09D 101/00 - C09D 201/10 (excluding C09D 183/02 - C09D 183/16), whereas the subsequent symbols representing the polymers in minority are taken from the groups C08L 83/02 - C08L 83/16 (for the Si-based polymer in majority, and in C08L 83/00 for the Si-based polymer in minority.
- In #C9Df(Si), the base symbol, representing the polymer in majority, is taken from the groups C09D 101/00 - C09D 201/10 (excluding C09D 183/02 - C09D 183/16), whereas the subsequent symbols representing the polymers in minority are taken from the groups C08L 83/02 - C08L 83/16 (for the Si-based polymer in majority, and in C08L 83/00 (for the Si-based polymer in minority) and further subsequent symbols representing compound(s) used as an additive(s), is (are) taken from the groups C08K 3/00 - C08K 13/08.
- In addition to C-Sets, one or more additional symbols are allocated, which are selected from the range C08G 77/02 - C08G 77/62 corresponding to each of the Si-based polymer detailed in the C-Set.
- In all cases, a single symbol is also given according to the macromolecular constituent present in the highest proportion.

**C-Sets syntax rules:**

- C-Set of #C9Dc(Si) shall contain at least three symbols.
- C-Set of #C9Df(Si) shall contain at least four or more symbols.
- Duplicate subsequent symbols are allowed in these C-Sets for subsequent symbols only, only one symbol selected from the range C08L 83/02 - C08L 83/16 is permitted per C-Set.
- Breakdown indexing codes are not allowed as either base or subsequent symbols.
- The order of symbols in these C-Sets is relevant as it reflects the relative amounts of each polymer; C09D always appears as base symbol.

- For #C9Df(Si), the symbols for the additive(s) always appear(s) after the symbols for the polymers regardless their relative amounts.

**C-Sets examples:**

- #C9Dc(Si): A coating composition comprising, in descending amounts by weight, a polyester in accordance with C08G 63/02 (C09D 167/02), an amine-substituted polysiloxane in accordance with C08G 77/26 and an epoxy-substituted polysiloxane in accordance with C08G 77/14 is classified as (C09D 167/02, C08L 83/08, C08L 83/00) and in C08G 77/14 (ADD) and C08G 77/26 (ADD).
- #C9Df(Si): A coating composition comprising, in descending amounts by weight, a polyester in accordance with C08G 63/02 (C09D 167/02), an amine-substituted polysiloxane in accordance with C08G 77/26 and an epoxy-substituted polysiloxane in accordance with C08G 77/14 is classified as (C09D 167/02, C08L 83/08, C08L 83/00) and in C08G 77/14 (ADD) and C08G 77/26 (ADD).

Also see C09D 183/00 for more examples of compositions comprising Si-containing polymers

**C-Sets Searches:**

C-Sets search queries may be made according to C-Sets classification rules described in C09D and related subclasses, e.g. C08K, C08L, and C09J.

In addition, Search rules #C8Lz, #C9Dz, and #C9Jz may be followed to search for polymers in documents classified prior to April 2012.

Search Rule #C9Dz:

To search a coating composition of 2 polymers, build search queries as follows:

- (C09D of the polymer in majority, C08L 2666/00 - C08L 2666/26). The subsequent symbol is selected from the most appropriate subgroup of C08L 2666/02 - C08L 2666/26 (last place rule).

The search statement can also be further refined by searching the polymer in minority by using its C08L as ADD for documents classified between 2003 and April 2012.

Example 1: A coating of 60 parts polyvinylchloride (C09D 127/06) and 40 parts polyamide

Search queries: (C09D 127/06, C08L 2666/20), and optionally C08L 77/00 (ADD).

Example 2: A coating of 50 parts polyvinylchloride (C09D 127/06) and 50 parts polyamide (C09D 177/00)

Search queries: (C09D 127/06, C08L 2666/20), and optionally C08L 77/00, as well as (C09D 177/00, C08L 2666/04) and optionally C08L 27/06.

#C9Dz search rules do not apply when polysiloxane is in majority and when there is a second polysiloxane, C08L 83/00 is used as subsequent symbol(s) in that case.

Example 3: A coating composition based on a first polysiloxane (C09D 183/04) and containing a second polysiloxane, a phenol and silica

Search queries: (C09D 183/04, C08L 83/00, C08K 5/13, C08K 3/36); and C08L 2205/02 can also be searched.

To search for a composition of 3 or more polymers, build search queries as follows:

- (C08L of the polymer in majority, C08L 2666/00 - C08L 2666/26) and C08L 2205/03 (ADD)

The search statement can also be further refined by searching the polymers in minority by using their C08L as ADD for documents classified between 2003 and April 2012.

In the case of a composition of three or more polymers, the subsequent symbol is taken from the common C08L 2666/00 - C08L 2666/26 group that covers all minority polymers.

# C09D 103/00

## Coating compositions based on starch, amylose or amylopectin or on their derivatives or degradation products

### Definition statement

*This place covers:*

Coating compositions comprising starch, amylose or amylopectin or of their derivatives or degradation products corresponding to the following groups used to classify the preparation of starch, amylose, amylopectin or of their derivatives:

C08B 30/00-C08B 30/18

C08B 31/00-C08B 31/185

C08B 33/00-C08B 33/08

C08B 35/00-C08B 35/08

### Relationships with other classification places

A composition based on starch or derivatives thereof is classified in C08L.

Covalently or ionically crosslinked gels are classified in C08B.

Adhesive compositions based on such starches are classified in C09J.

**Multiple classification**

Please refer to the comments provided for the CPC Definitions of C08B, as well as for the corresponding C08B main groups.

### References

#### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Starch and derivatives thereof per se | C08B 30/00 - C08B 35/08 |
| Composition comprising starch, amylose, amylopectin or their derivatives or degradation products | C08L 3/00 - C08L 3/20 |
| Composition of natural macromolecular compounds or of derivatives thereof not provided for in groups C08L 89/00 - C08L 97/00, e.g. flours | C08L 99/00 |
| Adhesive or binder composition comprising cellulose or cellulose derivative starch, amylose, amylopectin or their derivatives or degradation products | C09J 103/00 - C09J 103/20 |

### Special rules of classification

Last place priority rule:

Within each group of this subclass, in the absence of an indication to the contrary, classification is made in the last appropriate place.

Classification guidance:

- The subject-matter disclosed in both the claims and the examples of a patent document is to be classified.
- A composition of starch or derivatives thereof in solution, together with other macromolecular compounds, or together with an inorganic or non-macromolecular organic additive are considered as a coating composition and are thus classified according to the rules of C09D..
- "Derivative" or "degradation product" do not include products obtained from starch such as corn syrup, corn sugar, corn-based ethanol or charcoal.

**C-Sets classification:**

In this group, C-Sets (#C9Dc, #C9De, #C9Df, #C9Dc(Si) and #C9Df(Si)) are used. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of classification in C09D 101/00.

- The coating compositions of this group are classified in the form of C-Sets according to the relative proportions by weight percentage of the macromolecular constituents.
- A single symbol is given according to the macromolecular constituent present in the highest proportion.
- If all the constituents are present in equal proportions, the composition is classified according to each of these constituents.
- A coating composition containing starch and an inorganic or non-macromolecular organic additive as compounding agent is not classified in C08K, but in the C09D subclass together with the corresponding symbol in C08K in the form of C-Sets (i.e. #C9De).

Example 1: A coating composition of starch acetate in solution is classified in C09D 103/06.

Example 2: A coating composition consisting of 60 wt% of crosslinked starch and 40 wt.% of maltodextrin is classified in (C09D 103/04, C08L 3/02) and C08L 2205/02.

Example 3: A coating composition consisting of carboxymethyl starch and glycerol (plasticiser) is classified in (C09D 103/08, C08K 5/053) and C08K 5/0016.

**C-Sets Searches**

C-Sets search queries may be made according to C-Sets classification rules described in C09D 101/00 and related subclasses. In addition, #C8Lz, #C9Dz, and #C9Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

# C09D 105/00

## Coating compositions based on polysaccharides or on their derivatives, not provided for in groups C09D 101/00 or C09D 103/00

### Definition statement

*This place covers:*

Compositions of polysaccharides, other than cellulose and starch, or derivatives thereof corresponding to the following groups:

C08B 37/00-C08B 37/0096.

### Relationships with other classification places

Covalently or ionically crosslinked gels are classified in C08B.

A composition based on such polysaccharides or derivatives thereof is classified in C08L.

Adhesive compositions based on such polysaccharides are classified in C09J.

## References

### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Polysaccharides per se | C08B 37/00 - C08B 37/0096 |
| Composition comprising polysaccharide or polysaccharide derivative | C08L 5/00 - C08L 5/16 |
| Adhesive or binder composition comprising polysaccharide or polysaccharide derivative | C09J 105/00 - C09J 105/16 |

## Special rules of classification

Last place priority rule:

Within each group of this subclass, in the absence of an indication to the contrary, classification is made in the last appropriate place.

Classification guidance:

- The subject-matter disclosed in both the claims and the examples of a patent document is to be classified.
- A composition of polysaccharides or derivatives thereof in solution, together with other macromolecular compounds, or together with an inorganic or non-macromolecular organic additive are considered as a coating composition and are thus classified according to the rules of C09D.

**C-Sets classification:**

In this group, C-Sets (#C9Dc, #C9De, #C9Df, #C9Dc(Si) and #C9Df(Si)) are used for classification. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of classification in C09D 101/00.

- The coating compositions of this group are classified in the form of C-Sets according to the relative proportions by weight percentage of the macromolecular constituents.
- In addition, a single symbol is given according to the macromolecular constituent present in the highest proportion.
- If all the constituents are present in equal proportions, the composition is classified according to each of these constituents.

Example 1: A coating composition of ethers of cyclodextrin in solution is classified in C09D 105/16.

Example 2: A coating composition consisting of 60 wt.% of hyaluronic acid and 40 wt.% of maltodextrin is classified as (C09D 105/08, C08L 3/02).

Example 3: A coating composition consisting of carboxymethyl dextran and glycerol (plasticiser) is classified as (C09D 105/02, C08K 5/053) and C08K 5/0016.

**C-Sets Searches:**

C-Sets search queries may be made according to C-Sets classification rules described in C09D 101/00 and related subclasses. In addition, #C8Lz, #C9Dz, and #C9Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

# C09D 107/00

## Coating compositions based on natural rubber

### Definition statement

*This place covers:*

Coating compositions of only natural rubber or natural rubber latex.

### Relationships with other classification places

- Compositions comprising diene rubbers or their derivatives are classified in C08L 7/00 - C08L 21/00
- Adhesive compositions comprising diene rubbers or their derivatives are classified in C09J 107/00 - C09J 121/00
- Compositions of diene rubbers or their derivatives in minority are given an additional symbol in C08L 7/00 - C08L 21/00
- Polymerisation of diene polymers is classified in C08F 36/00, C08F 136/00 or C08F 236/00.
- Treatment or chemical modification of diene rubber is classified in C08C 1/00 - C08C 19/44.
- Preparation of polymer compositions is classified in C08J 3/20 - C08J 3/22.
- Recycling of polymers is classified in C08J 11/04 - C08J 11/28

### References

#### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Coating compositions of copolymers of ethene-propene or ethene-propene-diene, e.g. EPM or EPDM rubber | C09D 123/16 |
| Coating compositions of copolymers of isobutene with minor part of conjugated dienes monomers, e.g. butyl rubber | C09D 123/22 |
| Coating compositions of polyacrylates | C09D 133/00 |
| Coating compositions of unconjugated dienes | C09D 147/00 |
| Coating compositions of graft copolymers | C09D 151/00 |
| Coating compositions of block copolymers | C09D 153/00 |
| Coating compositions of ABS | C09D 155/02 |
| Chemical compositions of tyres | B60C 1/00 |
| Treatment or chemical modification of rubbers | C08C 1/00 - C08C 19/44 |
| Preparation of rubber compounds | C08J 3/20 - C08J 3/22 |
| Recycling of Polymers | C08J 11/04 - C08J 11/28 |
| Inorganic or non-macromolecular organic materials as compounding agents | C08K |
| Compositions of diene rubbers or their derivatives in minority | C08L 7/00 - C08L 21/00 |
| Adhesive compositions comprising diene rubbers or their derivatives | C09J 107/00 - C09J 121/00 |

### Special rules of classification

Last place priority rule:

Within each subgroup of this group, in the absence of an indication to the contrary, classification is made in the last appropriate place.

**C-Sets classification:**

In this group, C-Sets (#C9Dc, #C9De, #C9Df, #C9Dc(Si) and #C9Df(Si)) are used for classification. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of classification in C09D 101/00.

**C-Sets searches:**

C-Sets search queries may be made according to C-Sets classification rules described in C09D 101/00 and related subclasses. In addition, #C8Lz, #C9Dz, and #C9Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

## Glossary of terms

*In this place, the following terms or expressions are used with the meaning indicated:*

Attention is drawn to the Glossary at subclass level.

## Synonyms and Keywords

*In patent documents, the following abbreviations are often used:*

| | |
|---|---|
| NR | Natural rubber |
| BR | Butadiene rubber |
| IR | Isoprene rubber |
| SBR | Styrene butadiene rubber |
| NBR | Acrylonitrile butadiene rubber |
| CR | Chloroprene rubber |
| IIR | Butyl rubber |
| EPM | Ethene propene rubber |
| EPDM | Ethene propene diene rubber |
| SAN | Styrene acrylonitrile copolymer |
| ABS | Acrylonitrile butadiene styrene |

# C09D 109/00

### Coating compositions based on homopolymers or copolymers of conjugated diene hydrocarbons

## Definition statement

*This place covers:*

Coating compositions of homo- or copolymers with acrylonitrile or latex

Coating compositions of homo- or copolymers with styrene or latex

## Relationships with other classification places

See C09D 107/00.

## Special rules of classification

Last place priority rule:

Within each subgroup of this group, in the absence of an indication to the contrary, classification is made in the last appropriate place.

**C-Sets classification:**

In this group, C-Sets (#C9Dc, #C9De, #C9Df, #C9Dc(Si) and #C9Df(Si)) are used for classification. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of classification in C09D 101/00.

Example 1: A coating composition comprising a blend of 60 parts polybutadiene (C09D 109/00) and 40 parts polyamide (C08L 77/00) is classified as (C09D 109/00, C08L 77/00).

Example 2: A coating composition comprising a blend of 50 parts polybutadiene (C09D 109/00) and 50 parts polyamide (C09D 177/00) is classified as (C09D 109/00, C08L 77/00) and (C09D 177/00, C08L 9/00).

Example 3: A coating composition comprising a blend of 60 parts polybutadiene (C09D 109/00), 40 parts natural rubber (C08L 7/00) and 40 parts of silica is classified as (C09D 109/00, C08L 7/00, C08K 3/36).

**C-Sets searches:**

C-Sets search queries may be made according to C-Sets classification rules described in C09D 101/00 and related subclasses. In addition, #C8Lz, #C9Dz and #C9Jz Search Rules may be followed to search for polymers with additives in documents classified prior to April 2012.

## Glossary of terms

*In this place, the following terms or expressions are used with the meaning indicated:*

Attention is drawn to the Glossary at subclass level.

## Synonyms and Keywords

See C09D 107/00.

# C09D 111/00

## Coating compositions based on homopolymers or copolymers of chloroprene

## Definition statement

*This place covers:*

Coating compositions of homo- or copolymers of chloroprene or latex.

## Relationships with other classification places

See C09D 107/00.

## Special rules of classification

**C-Sets classification:**

In this group, C-Sets (#C9Dc, #C9De, #C9Df, #C9Dc(Si) and #C9Df(Si))) are used for classification. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of classification in C09D 101/00.

**C-Sets searches:**

C-Sets search queries may be made according to C-Sets classification rules described in C09D 101/00 and related subclasses. In addition, #C8Lz, #C9Dz and #C9Jz Search Rules may be followed to search for polymers with additives in documents classified prior to April 2012.

### Glossary of terms

*In this place, the following terms or expressions are used with the meaning indicated:*

Attention is drawn to the Glossary at subclass level.

### Synonyms and Keywords

See C09D 107/00.

## C09D 113/00

### Coating compositions based on rubbers containing carboxyl groups

### Definition statement

*This place covers:*

- Coating compositions of rubbers containing carboxyl groups containing monomers in minority, e.g. acrylic acid or acrylic acid esters

### Relationships with other classification places

See C09D 107/00.

### Special rules of classification

**C-Sets classification:**

In this group, C-Sets (#C9Dc, #C9De, #C9Df, #C9Dc(Si) and #C9Df(Si)) are used for classification. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of classification in C09D 101/00.

**C-Sets searches:**

C-Sets search queries may be made according to C-Sets classification rules described in C09D 101/00 and related subclasses. In addition, #C8Lz, #C9Dz and #C9Jz Search Rules may be followed to search for polymers with additives in documents classified prior to April 2012.

### Glossary of terms

*In this place, the following terms or expressions are used with the meaning indicated:*

Attention is drawn to the Glossary at subclass level.

### Synonyms and Keywords

See C09D 107/00.

## C09D 115/00

### Coating compositions based on rubber derivatives (C09D 111/00, C09D 113/00 take precedence)

### Definition statement

*This place covers:*

- Coating compositions based on rubber derivates. Rubber derivate means a rubber treated according to C08C.

### Relationships with other classification places

See C09D 107/00.

An additional symbol in C08C may be given for the treatment of rubbers.

## References

### *Limiting references*

*This place does not cover:*

| | |
|---|---|
| Coating compositions based on copolymers of chloroprene | C09D 111/00 |
| Coating compositions based on rubbers containing carboxyl groups | C09D 113/00 |

## Special rules of classification

**C-Sets classification:**

In this group, C-Sets (#C9Dc, #C9De, #C9Df, #C9Dc(Si) and #C9Df(Si)) are used for classification. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of classification in C09D 101/00.

**C-Sets searches:**

C-Sets search queries may be made according to C-Sets classification rules described in C09D 101/00 and related subclasses. In addition, #C8Lz, #C9Dz and #C9Jz Search Rules may be followed to search for polymers with additives in documents classified prior to April 2012.

## Glossary of terms

*In this place, the following terms or expressions are used with the meaning indicated:*

Attention is drawn to the Glossary at subclass level.

## Synonyms and Keywords

See C09D 107/00.

# C09D 117/00

## Coating compositions based on reclaimed rubber

## Definition statement

*This place covers:*

- Reclaimed rubber, i.e. reuse of unvulcanised or devulcanised rubber.

## Relationships with other classification places

See C09D 107/00.

## Special rules of classification

**C-Sets classification:**

In this group, C-Sets (#C9Dc, #C9De, #C9Df, #C9Dc(Si) and #C9Df(Si)) are used for classification. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of classification in C09D 101/00.

**C-Sets searches:**

C-Sets search queries may be made according to C-Sets classification rules described in C09D 101/00 and related subclasses. In addition, #C8Lz, #C9Dz and #C9Jz Search Rules may be followed to search for polymers with additives in documents classified prior to April 2012.

## Glossary of terms

*In this place, the following terms or expressions are used with the meaning indicated:*

Attention is drawn to the Glossary at subclass level.

## Synonyms and Keywords

See C09D 107/00.

# C09D 119/00

## Coating compositions based on rubbers, not provided for in groups C09D 107/00 - C09D 117/00

## Definition statement

*This place covers:*

Coating compositions based on natural or synthetic elastic material not classifiable in groups C09D 107/00-C09D 117/00.

- Coating compositions comprising vulcanised or crosslinked rubber are classified in C09D 119/003.
- Coating compositions containing rubbers with functional groups e.g. telechelic diene rubbers, are classified in C09D 119/006.

## Relationships with other classification places

See C09D 107/00.

## Special rules of classification

**C-Sets classification:**

In this group, C-Sets (#C9Dc, #C9De, #C9Df, #C9Dc(Si) and #C9Df(Si)) are used for classification. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of classification in C09D 101/00.

**C-Sets searches:**

C-Sets search queries may be made according to C-Sets classification rules described in C09D 101/00 and related subclasses. In addition, #C8Lz, #C9Dz and #C9Jz Search Rules may be followed to search for polymers with additives in documents classified prior to April 2012.

## Glossary of terms

*In this place, the following terms or expressions are used with the meaning indicated:*

Attention is drawn to the Glossary at subclass level.

## Synonyms and Keywords

See C09D 107/00.

# C09D 121/00

## Coating compositions based on unspecified rubbers

## Definition statement

*This place covers:*

Coating compositions based on unspecified rubbers or latex.

## Relationships with other classification places

See C09D 107/00.

## Special rules of classification

**C-Sets classification:**

In this group, C-Sets (#C9Dc, #C9De, #C9Df, #C9Dc(Si) and #C9Df(Si)) are used for classification. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of classification in C09D 101/00.

**C-Sets searches:**

C-Sets search queries may be made according to C-Sets classification rules described in C09D 101/00 and related subclasses. In addition, #C8Lz, #C9Dz and #C9Jz Search Rules may be followed to search for polymers with additives in documents classified prior to April 2012.

## Glossary of terms

*In this place, the following terms or expressions are used with the meaning indicated:*

Attention is drawn to the Glossary at subclass level.

## Synonyms and Keywords

See C09D 107/00.

# C09D 123/00

## Coating compositions based on homopolymers or copolymers of unsaturated aliphatic hydrocarbons having only one carbon-to-carbon double bond; Coating compositions based on derivatives of such polymers

## Definition statement

*This place covers:*

Coating compositions based on homopolymers or copolymers of unsaturated aliphatic hydrocarbons having only one carbon-to-carbon double bond; Coatings based on derivatives of such polymers

Coating compositions based on modified polymers classified as such in C08F 8/00 subgroups.

## References

### *Application-oriented references*

*Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:*

| | |
|---|---|
| Working-up, compounding, after-treatment of macromolecular compounds | C08J 3/00 - C08J 11/28 |
| Use of Inorganic of non-macromolecular organic substances as compounding ingredients | C08K 3/00 - C08K 13/08 |
| Textile-treating compositions, e.g. production of multi-layer textile fabrics | D06M, D06M 17/00 |

### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Surgical adhesives | A61L 24/00 |

| | |
|---|---|
| Applications or uses of polymer compositions in films, e.g. a film of polyolefin | C08J |
| Additives in polymer compositions | C08K |
| Compositions per se | C08L 23/00 |
| Adhesives or use of materials as adhesives | C09J 123/00 |
| Electrical cables and wires | H01B |
| Encapsulation of solar cells | H01L |

## Special rules of classification

Last place priority rule:

Within each subgroup of this group, in the absence of an indication to the contrary, classification is made in the last appropriate place.

Classification guidance:

- Documents are preferably classified according to the examples in the documents, not according to general claims, e.g. if the examples only describe coatings based on polyethylene, but subject-matter of the claim is a coating of polyolefin, the document is classified under coatings of polyethylene, e.g. (C09D 123/06).
- In C09D 123/00, coatings that have only one polymeric component are also classified, e.g. C09D 123/0815 is used for a coating of only one ethylene vinylacetate polymer.
- Single polymers and their preparation are to be classified in C08F 210/00 on the basis of sufficient disclosure in the document.

Choice of symbol for copolymer:

- a composition of copolymers get the symbol of the major component, except if there is a lower group which specifies the comonomer in minority (see also last place rule), e.g. ethylene butene copolymers (ethylene comonomer in majority) would be classified in C09D 123/0815, and not in C09D 123/20, but ethylene butene copolymers (butene in majority) would be classified in C09D 123/20, not in C09D 123/0815.
- In addition, a separate C-Set representing the copolymer that is formed according to the monomers of C08F must also be given.

**C-Sets classification:**

In this group, C-Sets (#C9Dc, #C9De, #C9Df, #C9Dc(Si) and #C9Df(Si)) are used. The detailed information about the C-Sets construction and the associated syntax rules are found in the "Special rules of classification" in C09D 101/00.

- If C09D 123/00 relates to a compositions and two or more polymers are present, classification is given in the form of C-Sets according to the relative weight percentage of the polymer constituents.
- The polymer in majority is given a symbol as a base symbol, and the polymers in minority are given symbols as subsequent symbols in the form of C-Sets.
- If all the constituents are present in equal weight percentage, the composition is classified according to each of these constituents.
- In the case that several polymers can be in majority, separate C-Sets should be made based on each polymer in majority and its component(s) in minority.
- Orthogonal indexing codes C08L 2201/00 - C08L 2555/86 are also given if applicable.

Example 1: A coating of a blend of 60 parts polyethylene (C09D 123/06) and 40 parts polyamide (C08L 77/00) is classified as (C09D 123/06, C08L 77/00).

Example 2: A coating composition containing 80 parts of polyethene and 20 parts of polyvinylchloride is classified as (C09D 123/06, C08L 27/06).

Example 3: A coating of a blend of 50 parts polyethylene (C09D 123/06) and 50 parts polyamide (C09D 177/00) is classified as (C09D 123/06, C08L 77/00) and (C09D 177/00, C08L 23/06).

Example 4: A coating composition containing 50 parts of polyethene and 50 parts of polyvinylchloride is classified in (C09D 123/06, C08L 27/06) and in groups (C09D 127/06, C08L 23/06).

Example 5: A coating based on a composition of polyethylene and containing CaCO3 is classified in (C09D 123/06, C08K 3/26). If this composition contains also a polyamide, then the classification will be (C09D 123/06, C08L 77/00, C08K 3/26).

Example 6: A coating based on a composition based on a first polyethylene (C09D 123/06) and containing a second polyethylene, a phenol and silica is classified as (C09D 123/06, C08L 23/06, C08K 5/13, C08K 3/36) and C08L 2205/025.

Example 7: A coating based on a composition containing a polyamide in majority, a polyester and a polyethylene is classified as (C09D 177/00, C08L 67/00, C08L 23/06) and C08L 2205/03.

Example 8: Coatings of compositions containing two polymers of the same dot group, for example compositions of two ethylene vinylacetate copolymers, are characterised by the orthogonal indexing code C08L 2205/025. The complete classification for such a composition therefore would be (C09D 123/0853, C08L 23/0853) and C08L 2205/025. The same applies for compositions of two polymers only distinguished by physical properties, e.g. molecular weight or density.

**C-Sets searches:**

C-Sets search queries may be made according to C-Sets classification rules described in C09D and related subclasses. In addition, #C8Lz, #C9Dz and #C9Jz Search Rules may be followed to search for polymers with additives in documents classified prior to April 2012.

## Glossary of terms

*In this place, the following terms or expressions are used with the meaning indicated:*

| | |
|---|---|
| Addition polymers | Polymers in which unsaturated monomer molecules join together to form a polymer in which the molecular formula of the repeat unit is identical (except for the double bond) with that of the monomer. |
| Aliphatic cyclic olefins | Carbocyclic monomer with an endocyclic double bond |
| Block polymers | Polymers formed by polymerization of monomers on to a macromolecule having groups capable of inducing the formation of new polymer chains bound at one or both ends of the starting macromolecule, or by polymerization using successively different catalyst types or successively different monomer systems without deactivating the intermediate polymer. |
| Condensation polymers | Polymers in which water or some other simple molecule is eliminated from 2 or more monomer molecules as they combine to form the polymer or crosslinks between polymer chains. |
| Copolymer | Usually denotes a polymer of 2 chemically distinct monomers, and sometimes denotes a terpolymer containing more than 2 types of monomer unit. |
| EPR or EPDM, elastomeric ethylene propylene (diene) copolymers | Elastomeric copolymer rubbers defined by similar amounts of ethylene and propene, e.g. 30 - 70wt.% ethylene and 70 - 30wt.% propene. |
| Graft polymers | Macromolecular compounds obtained by polymerizing monomers on to preformed polymers or on to inorganic materials. Such preformed polymers could be rubbers, polysaccharides, condensation polymers, homopolymers or copolymers of the addition polymer type. |

| | |
|---|---|
| Homopolymers | Polymers resulting from the polymerisation of a single monomer or polymer with a single type of repeating unit. |
| Ionomer | Polymers containing monomers carrying ionic groups, usually salts of carboxylic acids. |
| Iso-olefin | Non-linear olefinic monomers, e.g. isobutylene, isopentene. |
| Modified by chemical after treatment | Modification of the polymer after polymerisation, exception: neutralisation of carboxylic acid containing polymers (C08L 23/0884) and saponification of vinylacetate in EVA (C08L 23/0861) are not regarded as after treatments in accordance with C08L 23/00. |
| Repeat(ing) unit | The unit in an addition polymer which is repeated throughout the molecule; for example in polyethylene the repeat unit is:–$CH_2$-$CH_2$- |
| Rubber | a. Natural or conjugated diene rubbers ;b. Rubber in general. |
| Saponified vinylacetate | Ethylene copolymers with vinyl alcohol. |

## Synonyms and Keywords

*In patent documents the following abbreviations are often used:*

Attention is drawn to the table at subclass level.

# C09D 123/02

### not modified by chemical after-treatment

## Special rules of classification

This group should only be used in exceptional cases, e.g. no or too many examples.

# C09D 123/025

### {Copolymer of an unspecified olefine with a monomer other than an olefine}

## Special rules of classification

This group should only be used in exceptional cases, e.g. no or too many examples.

# C09D 123/04

### Homopolymers or copolymers of ethene

## Special rules of classification

This group should only be used if there are examples of both of polymers of C09D 123/06 or C09D 123/0807 and C09D 123/0846.

# C09D 123/06

### Polyethene

## Definition statement

*This place covers:*

Coatings of homopolymers of polyethylene.

### Special rules of classification

Polymers can be further characterised by Indexing Codes chosen from C08L 2207/062, C08L 2207/066, C08L 2207/068, C08L 2207/07 or C08L 2314/02-C08L 2314/08.

## C09D 123/08

### Copolymers of ethene (C09D 123/16 takes precedence)

### Special rules of classification

This group should only be used if there are examples both of polymers of C09D 123/0807 and C09D 123/0846.

## C09D 123/0807

### {Copolymers of ethene with unsaturated hydrocarbons only containing more than three carbon atoms}

### Special rules of classification

Polymers can be further characterised by Indexing Codes C08L 2207/062-C08L 2207/07 or C08L 2314/02-C08L 2314/08

It is preferable to use C09D 123/0815

## C09D 123/0815

### {Copolymers of ethene with aliphatic 1-olefins}

### Definition statement

*This place covers:*

Copolymers of ethene with aliphatic 1-olefins, i.e. ethylene is in majority, e.g. ethylene-butene copolymers are only classifed when butene is clearly the minor component.

### References

#### *Limiting references*

*This place does not cover:*

| | |
|---|---|
| EPR | C09D 123/16 |

### Special rules of classification

Polymers can be further characterised by Indexing Codes C08L 2207/062-C08L 2207/07 or C08L 2314/02-C08L 2314/08.

## C09D 123/0823

### {Copolymers of ethene with aliphatic cyclic olefins}

### Definition statement

*This place covers:*

Coatings of ethylene-norbornene copolymers (TOPAS).

Coatings of copolymer of ethylene, propene and norbornene.

### References

#### *Limiting references*

*This place does not cover:*

| | |
|---|---|
| Copolymers with majority of norbornene | C09D 145/00 |

### Special rules of classification

This group takes precedence over C09D 123/0815.

## C09D 123/083

### {Copolymers of ethene with aliphatic polyenes, i.e. containing more than one unsaturated bond}

### Definition statement

*This place covers:*

Coatings of copolymer of ethylene, butene (small amount) and norbornene (smaller amount).

### Special rules of classification

This group takes precedence over C09D 123/0815.

## C09D 123/0838

### {Copolymers of ethene with aromatic monomers}

### Definition statement

*This place covers:*

Coatings of copolymer of ethylene, butene (small amount) and styrene (smaller amount)

### Special rules of classification

This group takes precedence over C09D 123/0815.

## C09D 123/0846

### {Copolymers of ethene with unsaturated hydrocarbons containing other atoms than carbon or hydrogen atoms}

### Definition statement

*This place covers:*

Coatings of copolymer of ethylene, butene (small amount) and acrylate (smaller amount)

### Special rules of classification

This group takes precedence over C09D 123/0815.

## C09D 123/0861

### {Saponified vinylacetate}

### Definition statement

*This place covers:*

Coatings of copolymer of ethylene, vinylaceate (small amount) and vinylalcohol (smaller amount, e.g. partially saponified EVA).

### Special rules of classification

This group takes precedence over C09D 123/0861.

## C09D 123/0869

### {Acids or derivatives thereof}

### Definition statement

*This place covers:*

Coatings of ethylene copolymers with vinyl sulfonic acids, acids, anhydrides, esters.

Radicals other than carboxyls are not classified in this group.

### Special rules of classification

C09D 123/0892 takes precedence over this group.

## C09D 123/0876

### {Neutralised polymers, i.e. ionomers}

### Definition statement

*This place covers:*

Ethylene carboxylic acid copolymers where H+ is replaced by M+; M+ is not regarded as "other atom" in the sense of C09D 123/0892.

### Special rules of classification

This group takes precedence over C09D 123/0892.

## C09D 123/0884

### {Epoxide containing esters}

### Definition statement

*This place covers:*

Coatings of ethylene copolymers with glycidyl methacrylate.

## C09D 123/0892

### {containing monomers with other atoms than carbon, hydrogen or oxygen atoms}

#### References

##### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Coating compositions with copolymers of ethene with monomers with other atoms than carbon, hydrogen or oxygen atoms when the olefin is in minority | C09D 133/00 - C09D 143/00 |

#### Special rules of classification

This group takes precedence over C09D 123/0869.

## C09D 123/10

### Homopolymers or copolymers of propene

#### Definition statement

*This place covers:*

Coatings of homopolymers or copolymers of propene

#### Special rules of classification

This group can be further characterised by Indexing Codes C08L 2207/10-C08L 2207/14 or C08L 2314/02-C08L 2314/08.

## C09D 123/12

### Polypropene

#### Definition statement

*This place covers:*

Coating compositions of homopolymers of propene.

#### Special rules of classification

This group can be further characterised by Indexing Codes C08L 2207/10-C08L 2207/14 or C08L 2314/02-C08L 2314/08.

## C09D 123/14

### Copolymers of propene (C09D 123/16 takes precedence)

#### Definition statement

*This place covers:*

Coating compositions of copolymers of propene, when the propene is in majority, e.g. ethylene-propene copolymers when ethylene is clearly the minor component.

Rubbery polymers, e.g. high a-olefin content or atactic, but no propene.

## References

### *Limiting references*

*This place does not cover:*

| | |
|---|---|
| Coatings containing EPR | C09D 123/16 |

## Special rules of classification

This group can be further characterised by Indexing Codes C08L 2207/10-C08L 2207/14 or C08L 2314/02-C08L 2314/08.

# C09D 123/145

## {Copolymers of propene with monomers having more than one C=C double bond}

## Special rules of classification

This group takes precedence over C09D 123/14 or C09D 123/142 in the case of terpolymers even if the polyene unit is the monomer in the lowest concentration.

# C09D 123/147

## {Copolymers of propene with monomers containing other atoms than carbon or hydrogen atoms}

## Special rules of classification

This group takes preference over C09D 123/14 or C09D 123/142 in the case of terpolymers even if the heteroatom carrying unit is the monomer in the lowest concentration.

# C09D 123/16

## {Elastomeric} ethene-propene or ethene-propene-diene copolymers, {e.g. EPR and EPDM rubbers}

## Definition statement

*This place covers:*

Coatings containing polymers comprising both ethylene and propylene on about the same amount.

## Special rules of classification

This group takes precedence over C09D 123/0815 and C09D 123/14; although these polymers are rubbers or elastomers, C08L 23/00 or subgroups is used if they not in majority.

# C09D 123/26

## modified by chemical after-treatment

## Special rules of classification

C09D 123/0861 takes precedence in the case of saponified EVA.

C09D 123/0876 takes precedence in the case of neutralised ethylene carboxylic acid copolymers (iononers).

## C09D 123/28

**by reaction with halogens or compounds containing halogen (C09D 123/32 takes precedence)**

### Special rules of classification

C09D 123/32 takes precedence over this group for chlorosulfonation.

## C09D 123/34

**by chlorosulfonation**

### Special rules of classification

This group takes precedence over C09D 123/28.

## C09D 125/00

**Coating compositions based on homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by an aromatic carbocyclic ring; Coating compositions based on derivatives of such polymers**

### Definition statement

*This place covers:*

Coatings of

- Homo- and copolymers of styrene,
- General purpose polystyrene (GPS),
- High impact polystyrene (HIPS).

### References

#### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| SBR rubber | C09D 109/06 - C09D 109/08 |
| Grafted (co)polymers | C09D 151/00 - C09D 151/10 |
| Block (co)polymers | C09D 153/02 - C09D 153/025 |
| Acrylonitrile butadiene styrene ABS | C09D 155/02 |

### Special rules of classification

Classification guidance:

- Classification should be made based on the examples, but not the general claims in the documents. The use of main group symbols should be avoided if there are subgroups which cover the subject matter to be classified. The classification should be made in the most indented subgroup that covers the subject matter.

- For example, a document claims coating compositions of a polymer of an aromatic vinyl monomer, but the examples are limited to e.g. polystyrene. The document should receive the symbol C09D 125/06, but not C09D 125/04, C09D 125/02 or C09D 125/00.
- General purpose polystyrene (GPS) is classified in C09D 125/06. (High) impact polystyrene HIPS is classified in C09D 125/06, unless the rubber or rubber content is of relevance, where it should be classified in C09D 151/04.

**C-Sets classification:**

In this group, C-Sets (#C9Dc, #C9De, #C9Df, #C9Dc(Si) and #C9Df(Si)) are used for classification. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of classification in C09D 101/00.

**C-Sets searches:**

C-Sets search queries may be made according to C-Sets classification rules described in C09D 101/00 and related subclasses. In addition, #C8Lz, #C9Dz and #C9Jz Search Rules may be followed to search for polymers with additives in documents classified prior to April 2012.

## Synonyms and Keywords

*In patent documents, the following abbreviations are often used:*

| | |
|---|---|
| PS | Polystyrene |
| GPS | General purpose polystyrene |
| HIPS | High impact polystyrene |
| SPS | Syndiotactic polystyrene |
| SAN | Styrene acrylonitrile copolymer |

# C09D 125/08

### Copolymers of styrene (C09D 129/08, C09D 135/06, C09D 155/02 take precedence)

## References

### *Limiting references*

*This place does not cover:*

| | |
|---|---|
| Coatings of copolymers with allyl alcohol, even when allyl alcohol monomer is in minority | C09D 129/08 |
| Coatings of copolymers with monomers according to C09D 135/06, even in minority | C09D 135/06 |
| Coatings of copolymers with monomers according to C09D 141/00, even in minority | C09D 141/00 |
| Coatings of copolymers with monomers according to C09D 143/00, even in minority | C09D 143/00 - C09D 143/04 |

## C09D 125/10

**with conjugated dienes**

### References

#### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Coatings of styrene butadiene rubber SBR | C09D 109/06 - C09D 109/08 |
| Coatings of grafted copolymers comprising styrene and dienes | C09D 151/00 |
| Coatings of block copolymers comprising styrene and dienes | C09D 153/00 |

## C09D 125/12

**with unsaturated nitriles**

### References

#### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Coatings of copolymers of unsaturated nitriles | C09D 133/18 - C09D 133/22 |
| Coatings of acrylonitrile butadiene styrene copolymers ABS | C09D 155/02 |

## C09D 125/14

**with unsaturated esters**

### References

#### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Coatings of copolymers with unsaturated carboxylic acids and esters thereof | C09D 133/00 - C09D 133/26 |

## C09D 127/00

**Coating compositions based on homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by a halogen; Coating compositions based on derivatives of such polymers**

### Definition statement

*This place covers:*

Coatings of

homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by a halogen,

modified or not by after-treatments, e.g. vinyl chloride, vinylidene chloride, vinyl fluoride, vinylidene fluoride, tetrafluoroethene or hexafluoropropene.

## References

### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Coatings of chemically modified, (post)halogenated polymers | C09D 123/28, C09D 127/24 |
| (per)Halogenated esters of unsaturated carboxylic acids | C09D 133/00 |
| (per)Halogenated polyethers | C09D 171/00 |

## Special rules of classification

Classification guidance:

- Classification should be made based on the examples, but not the general claims in the documents. The use of main group symbols should be avoided if there are subgroups which cover the subject matter to be classified. The classification should be made in the most indented subgroup that covers the subject matter.
- For example, a document claiming coating compositions of a fluorinated polymer, wherein the examples are limited to e.g. poly(tetrafluoroethylene), should be classified in C09D 127/18 and not in C09D 127/12.

**C-Sets classification:**

In this group, C-Sets (#C9Dc, #C9De, #C9Df, #C9Dc(Si) and #C9Df(Si)) are used for classification. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of classification in C09D 101/00.

**C-Sets searches:**

C-Sets search queries may be made according to C-Sets classification rules described in C09D 101/00 and related subclasses. In addition, #C8Lz, #C9Dz and #C9Jz Search Rules may be followed to search for polymers with additives in documents classified prior to April 2012.

## Synonyms and Keywords

*In patent documents, the following abbreviations are often used:*

| | |
|---|---|
| CTFE | Chlorotrifluoroethene, Chlorotrifluoroethylene |
| HFP | Hexafluoropropene, hexafluoropropylene |
| PTFE | Poly (tetrafluoroethene), Poly (tetrafluoroethylene) |
| PVC | Poly (vinyl chloride) |
| PVDC | Poly (vinylidene chloride) |
| PVDF | Poly (vinylidene fluoride) |
| PVF | Poly (vinyl fluoride) |

# C09D 127/12

## containing fluorine atoms

### Definition statement

*This place covers:*

Coating compositions of (co)polymers of fluorine containing unsaturated monomers other than those covered by C09D 127/14-C09D 127/20.

Coating compositions of (co)polymers of fluorine containing unsaturated monomers having additional halogen atom(s) other than fluorine, e.g. (co)polymers of chlorotrifluoroethylene.

# C09D 129/00

## Coating compositions based on homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by an alcohol, ether, aldehydo, ketonic, acetal, or ketal radical; Coating compositions based on hydrolysed polymers of esters of unsaturated alcohols with saturated carboxylic acids; Coating compositions based on derivatives of such polymers

### Definition statement

*This place covers:*

Coating compositions based on homopolymers or copolymers

- of unsaturated alcohols, e.g. polyvinyl alcohol
- of unsaturated ketones
- of acetals or ketals obtained by polymerisation of unsaturated acetals or ketals or by after-treatment of polymers of unsaturated alcohols

Coating compositions based on partially hydrolysed homopolymers or copolymers of esters of unsaturated alcohols with saturated carboxylic acids, e.g. copolymers of allyl alcohol.

### Special rules of classification

Classification guidance:

- Classification should be made based on the examples, but not the general claims in the documents. The use of main group symbols should be avoided if there are subgroups which cover the subject matter to be classified. The classification should be made in the most indented subgroup that covers the subject matter.
- For example, a document claiming coating compositions of a polymer of an unsaturated alcohol monomer, wherein the examples are limited to e.g. polyvinyl alcohol, should be classified in C09D 129/04 and not in C09D 129/02 or C09D 129/00.

**C-Sets classification:**

In this group, C-Sets (#C9Dc, #C9De, #C9Df, #C9Dc(Si) and #C9Df(Si)) are used for classification. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of classification in C09D 101/00.

**C-Sets searches:**

C-Sets search queries may be made according to C-Sets classification rules described in C09D 101/00 and related subclasses. In addition, #C8Lz, #C9Dz and #C9Jz Search Rules may be followed to search for polymers with additives in documents classified prior to April 2012.

### Synonyms and Keywords

| | |
|---|---|
| EVA or E-VA | Ethylene vinyl alcohol copolymer or ethylene vinyl acetate copolymer |
| PVA | Poly(vinyl alcohol) or poly(vinyl acetate) |
| PVB | Poly(vinyl butyral) |
| PVOH | Poly (vinyl alcohol) |

## C09D 129/04

### Polyvinyl alcohol; Partially hydrolysed homopolymers or copolymers of esters of unsaturated alcohols with saturated carboxylic acids

### Definition statement

*This place covers:*

Coatings of homopolymers of vinyl alcohol.

Coatings of saponified or hydrolysed (co)polymers of vinyl esters of saturated acids, e.g. saponified or hydrolysed (co)polymers of vinyl acetate.

## C09D 129/08

### with vinyl aromatic monomers

### Definition statement

*This place covers:*

Coatings of copolymers with styrene, even when styrene is in majority.

## C09D 129/10

### Homopolymers or copolymers of unsaturated ethers (C09D 135/08 takes precedence)

### References

#### *Limiting references*

*This place does not cover:*

| | |
|---|---|
| Copolymers with monomers according to C09D 135/08, e.g. unsaturated dicarboxylic acids, anhydrides or esters, even when these monomers are in minority | C09D 135/08 |

# C09D 131/00

## Coating compositions based on homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by an acyloxy radical of a saturated carboxylic acid, of carbonic acid, or of a haloformic acid (based on hydrolysed polymers C09D 129/00); Coating compositions based on derivatives of such polymers

## References

### *Limiting references*

*This place does not cover:*

| | |
|---|---|
| Coatings of hydrolysed or saponified polymers thereof | C09D 129/00 |

## Special rules of classification

Classification guidance:

- Classification should be made based on the examples, but not the general claims in the documents. The use of main group symbols should be avoided if there are subgroups which cover the subject matter to be classified. The classification should be made in the most indented subgroup that covers the subject matter.
- For example, a document claiming coating compositions of a (co)polymer of an unsaturated ester of a saturated carboxylic acid monomer, wherein the examples are limited to e.g. polyvinyl acetate, should receive the symbol C09D 131/04 and not C09D 131/02 or C09D 131/00

**C-Sets classification:**

In this group, C-Sets (#C9Dc, #C9De, #C9Df, #C9Dc(Si) and #C9Df(Si)) are used for classification. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of classification in C09D 101/00.

**C-Sets searches:**

C-Sets search queries may be made according to C-Sets classification rules described in C09D 101/00 and related subclasses. In addition, #C8Lz, #C9Dz and #C9Jz Search Rules may be followed to search for polymers with additives in documents classified prior to April 2012.

## Synonyms and Keywords

| | |
|---|---|
| EVA or E-VA | Ethylene vinyl acetate copolymer or ethylene vinyl alcohol copolymer |
| PVA | Poly(vinyl acetate) or poly(vinyl alcohol) |
| PVAC or PVAc | Poly (vinyl acetate) |

# C09D 133/00

## Coating compositions based on homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by only one carboxyl radical, or of salts, anhydrides, esters, amides, imides, or nitriles thereof; Coating compositions based on derivatives of such polymers

## Definition statement

*This place covers:*

Coating compositions based on homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by only one carboxyl radical, or of salts, anhydrides, esters, amides, imides, or nitriles thereof, e.g. acrylamide, methacrylamide or acrylic acid esters.

## References

### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Printing inks | C09D 11/00 |
| Coating compositions based on diene rubbers having acrylic monomers in minority | C09D 113/00 |
| Coating compositions having a major polymer part containing monomers in minority | C09D 135/00 - C09D 143/00 |
| Surgical adhesives | A61L 24/00 |
| Applications or uses of polymer compositions in films, e.g. a film of polymethyl methacrylate | C08J e.g. C08J 5/18, C08L 33/12 |
| Working-up, compounding, after-treatment of macromolecular compounds | C08J 3/00- C08J 11/28 |
| Polymer compositions | C08L 33/00 |
| Adhesives | C09J 133/00 |

## Special rules of classification

Last place priority rule:

- Within each subgroup of this group, in the absence of an indication to the contrary, classification is made in the last appropriate place.
- For example coating compositions comprising terpolymers of styrene, vinyl acetate and methyl methacrylate in similar proportions should be classified in C09D 133/12 instead of C09D 125/00 or C09D 131/00.

Classification guidance:

- The monomer composition of the main polymer component can be characterised by a C-Set in C08F on the basis of sufficient disclosure in the description or claims.
- Documents are preferably classified according to the examples in the documents, not according to general claims, e.g. if the examples only describe compositions of acrylic copolymers, but subject matter of the claim is a composition of acrylamide copolymer, the document is classified as composition of acrylamide copolymers C09D 133/26.
- The classification of the main component polymer of the composition should be according to the most specific, or reactive monomer, e.g. glycidyl methacrylate and not methyl methacrylate

in a copolymer of glycidyl methacrylate and methyl methacrylate. All comonomers of the main polymeric component should be characterised by symbols in C08F, e.g. C08F 220/32 and C08F 220/14.

Choice of symbol for Copolymers:

- In a coating composition comprising a copolymer, the copolymer is given the symbol on the basis of the major component, except if there is a lower group which specifies the comonomer in minority.
- A coating composition based on a copolymer of ethylene and acrylic acid therefore is to be classified in C09D 123/0869 (ethylene in majority), but in C09D 133/02 if acrylic acid is in majority. However, a coating based on a copolymer of acrylic ester and acrylonitrile (acrylic ester in majority) would be classified in C09D 133/20.
- However, a coating based on a copolymer of acrylic ester and acrylonitrile (acrylic ester in majority) would be classified in C09D 133/20.
- In addition, a separate C-Set representing the copolymer that is formed according to the monomers of C08F must also be given.
- The classification of the main component polymer of the coating composition should be according to the most specific, or reactive monomer (i.e. glycidyl methacrylate and not methyl methacrylate in a copolymer of glycidyl methacrylate and methyl methacrylate).
- Thus coating compositions comprising copolymers wherein anhydride, carboxylic acid or metal salt containing monomers are present are classified in C09D 133/064; wherein hydroxyl-containing monomers are present are classified in C09D 133/064, copolymers wherein glycidyl-containing monomers are present are classified in C09D 133/068.

**C-sets classification:**

In this group, C-Sets (#C9Dc, #C9De, #C9Df, #C9Dc(Si) and #C9Df(Si)) are used for classification. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of classification in C09D 101/00.

- If C09D 133/00 relates to a composition and two or more polymers are present, classification is given in the form of C-Sets according to the relative weight percentage of the polymer constituents.
- The polymer in majority is given a symbol as a base symbol, and the polymers in minority are given symbols as subsequent symbols in the form of C-Sets.
- A single symbol is given according to the macromolecular constituent present in the highest proportion.
- If all the constituents are present in equal weight percentage, the composition is classified according to each of these constituents.
- In the case that several polymers can be in majority, separate C-Sets should be made based on each polymer in majority and its component(s) in minority.
- Orthogonal indexing codes C08L 2201/00 - C08L 2555/86 are also given if applicable.

Example 1: A coating composition of 60 parts polymethyl methacrylate (C09D 133/12) and 40 parts polyamide (C08L 77/00) is classified as (C09D 133/12, C08L 77/00).

Example 2: A coating composition of 50 parts polymethyl methacrylate (C09D 133/12) and 50 parts polyamide (C09D 177/00) is classified as (C09D 133/12, C08L 77/00) and (C09D 177/00, C08L 33/12).

Example 3: A coating composition based on polymethyl methacrylate and containing CaCO3 is classified as (C09D 133/12, C08K 3/26). If this composition contains also a polyamide, then the classification will be (C09D 133/12, C08L 77/00, C08K 3/26).

Example 4: A coating composition based on a first polymethyl methacrylate (C09D 133/12) and containing as a second polymer a copolymer of acrylic acid, a phenol and silica is classified as (C09D 133/12, C08L 33/02, C08K 5/13, C08K 3/36) and C08L 2205/02.

Example 5: A composition containing a polyamide in majority, a polyester and a polymethyl methacrylate is classified as (C09D 177/00, C08L 67/00, C08L 33/12) and C08L 2205/03.

Example 6: Coating compositions containing two polymers of the same dot group, for example compositions of two polymers amhydroxyl containing acrylic ester, are characterised by the orthogonal indexing code C08L 2205/025. The complete classification for such a composition therefore would be (C09D 133/066, C08L 33/066) and C08L 2205/025. The same applies for compositions of two polymers only distinguished by physical properties, e.g. molecular weight or density.

**C-Sets searches:**

C-Sets search queries may be made according to C-Sets classification rules described in C09D 101/00 and related subclasses. In addition, #C8Lz, #C9Dz and #C9Jz Search Rules may be followed to search for polymers with additives in documents classified prior to April 2012.

## Glossary of terms

*In this place, the following terms or expressions are used with the meaning indicated:*

Attention is drawn to the table after title of C09D 123/00.

## Synonyms and Keywords

*In patent documents the following abbreviations are often used:*

Attention is drawn to the table at subclass level.

# C09D 133/02

### Homopolymers or copolymers of acids; Metal or ammonium salts thereof

## References

### *Limiting references*

*This place does not cover:*

| | |
|---|---|
| Coating compositions containing copolymers containing bicarboxylic acids in majority | C09D 135/00 |

# C09D 133/04

### Homopolymers or copolymers of esters {(C09D 143/04 takes precedence)}

## Special rules of classification

All of C09D 137/00- C09D 143/04, C09D 133/064-C09D 133/068 and C09D 133/14-C09D 133/26 take precedence even if the corresponding monomers are in minority; these groups should be used if the nature of the acrylic ester polymer is not specified.

# C09D 133/06

### of esters containing only carbon, hydrogen and oxygen, the oxygen atom being present only as part of the carboxyl radical

## Definition statement

*This place covers:*

Coating compositions containing monomers which are alkyl alkylacrylate.

### Special rules of classification

| | |
|---|---|
| Acrylic acid esters or methacrylic acid esters with alkanols or phenols without having additional functional groups, e.g. methyl ethylacrylate | C09D 133/08 - C09D 133/12 |

## C09D 133/062

### {Copolymers with monomers not covered by C09D 133/06}

### Definition statement

*This place covers:*

Coating compositions containing monomers other than alkyl alkylacrylate.

Radicals other than coboxyls are not classified in this group.

### References

#### *Limiting references*

*This place does not cover:*

| | |
|---|---|
| Coating compositions containing monomers, which do not have OH, glycidyl, anhydride or additional acid groups as in C09D 133/064- C09D 133/068, and do not have halogen, nitrogen, sulfur, or oxygen as in C09D 133/14 | C09D 133/064 - C09D 133/068 |
| Coating compositions containing monomers which have halogen, nitrogen, sulfur, or oxygen | C09D 133/14 |

## C09D 133/064

### {containing anhydride, COOH or COOM groups, with M being metal or onium-cation}

### Definition statement

*This place covers:*

Acrylic coatings based on maleic acid or derivative containing polymers having maleic acid in minority.

### References

#### *Limiting references*

*This place does not cover:*

| | |
|---|---|
| Coatings where the olefin is in majority | C09D 123/0869 |
| Acrylic coatings based on maleic acid or derivative containing polymers having maleic acid in majorrity | C09D 135/00 |

## C09D 133/066

### {containing -OH groups}

### Definition statement

*This place covers:*

Coatings of copolymers containing hydroxyethyl methacrylate (HEMA).

## C09D 133/068

### {containing glycidyl groups}

### Definition statement

*This place covers:*

Coatings of copolymers containing glycidyl methacrylate.

## C09D 133/08

### Homopolymers or copolymers of acrylic acid esters

### Definition statement

*This place covers:*

Coatings of copolymers of esters of acrylic acid.

| | |
|---|---|
| Coatings of copolymers of other alkylacrylates | C09D 133/06 |

### Special rules of classification

All of C09D 137/00- C09D 143/04, C09D 133/062- C09D 133/068 and C09D 133/14-C09D 133/26 take precedence over this group even if the corresponding monomers are in minority.

## C09D 133/10

### Homopolymers or copolymers of methacrylic acid esters

### Special rules of classification

With copolymers of methacrylic acid esters, all of C09D 137/00- C09D 143/04, C09D 133/062-C09D 133/068 and C09D 133/14-C09D 133/26 take precedence even if the corresponding monomers are in minority.

## C09D 133/14

### of esters containing halogen, nitrogen, sulfur or oxygen atoms in addition to the carboxy oxygen

### Definition statement

*This place covers:*

Coatings of esters of acrylic acid with polyethylene ethers or aminomethyl acrylic esters.

## Special rules of classification

All of C09D 133/064-C09D 133/068, C09D 137/00-C09D 143/04 and C09D 133/18-C09D 133/26 take precedence

# C09D 135/00

## Coating compositions based on homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by a carboxyl radical, and containing at least another carboxyl radical in the molecule, or of salts, anhydrides, esters, amides, imides or nitriles thereof; Coating compositions based on derivatives of such polymers

## Definition statement

*This place covers:*

Coating compositions based on homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by a carboxyl radical, and containing at least another carboxyl radical in the molecule, or of salts, anhydrides, esters, amides, imides or nitriles thereof; Coating compositions based on derivatives of such polymers.

## Relationships with other classification places

Attention is drawn to the Relationship at subclass level.

## References

### *Application-oriented references*

*Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:*

| | |
|---|---|
| Post-polymerisation treatments | C08F 6/00- C08F 6/28 |
| Applications or uses of polymer compositions in films, e.g. a film of maleic anhydride copolymer | C08J |
| Working-up, compounding, after-treatment of macromolecular compounds | C08J 3/00- C08J 11/28 |
| Use of Inorganic of non-macromolecular organic substances as compounding ingredients | C08K 3/00- C08K 13/08 |

### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Coatings based on compositions of polymerisable monomers | C09D 4/00 |
| Printing ink | C09D 11/00 |
| Polymer compositions | C08L 35/00 |
| Adhesives | C09J 135/00 |
| Artificial filaments or fibres | D01F |
| Coatings of electrical wires | H01B |
| Encapsulation of solar cells | H01L |

## Special rules of classification

Last place priority rule:

Within each subgroup of this group, in the absence of an indication to the contrary, classification is made in the last appropriate place.

Classification guidance:

Documents are preferably classified according to the examples in the documents, not according to general claims, e.g. if the examples only describe coatings of compositions of styrene-maleic anhydride, but subject matter of the claim is a coating of a composition of a vinyl aromatic copolymer, the document is classified as coating composition of styrene maleic anhydride copolymer C09D 135/06.

**C-Sets classification**

In this group, C-Sets (#C9Dc, #C9De, #C9Df, #C9Dc(Si) and #C9Df(Si)) are used for classification. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of classification in C09D 101/00.

- If C09D 135/00 relates to a composition and two or more polymers are present, classification is given in the form of C-Sets according to the relative weight percentage of the polymer constituents
- The polymer in majority is given a symbol as a base symbol, and the polymers in minority are given symbols as subsequent symbols in the form of C-Sets.
- In addition, a single symbol is given according to the macromolecular constituent present in the highest proportion.
- If all the constituents are present in equal weight percentage, the composition is classified according to each of these constituents.
- In the case that several polymers can be in majority, separate C-Sets should be made based on each polymer in majority and its component(s) in minority.
- Orthogonal indexing codes C08L 2201/00 - C08L 2555/86 are also given if applicable.

Example 1: A coating of a blend of 60 parts styrene-maleic anhydride copolymer (C09D 135/06) and 40 parts polyamide (C08L 77/00) is classified as (C09D 135/06, C08L 77/00).

Example 2: A coating of a blend of 50 parts styrene-maleic anhydride copolymer (C09D 135/06) and 50 parts polyamide (C09D 177/00) is classified as (C09D 135/06, C08L 77/00) and (C09D 177/00, C08L 35/06).

Example 3: A coating of a composition based on styrene-maleic anhydride copolymer and containing CaCO3 is classified as (C09D 135/06, C08K 3/26). If this composition contains also a polyamide, then the classification will be (C09D 135/06, C08L 77/00, C08K 3/26).

Example 4: A coating of a composition based on a first styrene-maleic anhydride copolymer (C09D 135/06) and containing a second styrene-maleic anhydride copolymer, a phenol and silica is classified as (C09D 135/06, C08L 35/06, C08K 5/13, C08K 3/36) and C08L 2205/025.

Example 5: A coating of a composition containing a polyamide in majority, a polyester and a styrene-maleic anhydride copolymer is classified as (C08L 77/00, C08L 67/00, C08L 35/06) and C08L 2205/03.

Example 6: A coating of compositions containing two polymers of the same dot group, for example compositions of two styrene-maleic anhydride copolymer polymers, are characterised by the orthogonal indexing code C08L 2205/025. The complete classification for such compositions therefore would be (C09D 135/06, C08L 35/06) and C08L 2205/025. The same applies for compositions of two polymers only distinguished by physical properties, e.g. molecular weight or density.

**C-Sets searches:**

C-Sets search queries may be made according to C-Sets classification rules described in C09D 101/00 and related subclasses. In addition, #C8Lz, #C9Dz and #C9Jz Search Rules may be followed to search for polymers with additives in documents classified prior to April 2012.

## Glossary of terms

*In this place, the following terms or expressions are used with the meaning indicated:*

Attention is drawn to the table after title of C09D 123/00.

## Synonyms and Keywords

*In patent documents, the following words/expressions are often used as synonyms:*

Attention is drawn to the table at subclass level.

# C09D 137/00

## Coating compositions based on homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by a heterocyclic ring containing oxygen (based on polymers of cyclic esters of polyfunctional acids C09D 131/00; based on polymers of cyclic anhydrides of unsaturated acids C09D 135/00); Coating compositions based on derivatives of such polymers

## Definition statement

*This place covers:*

Coating compositions based on homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by a heterocyclic ring containing oxygen; coating compositions based on derivatives of such polymers

## Relationships with other classification places

Attention is drawn to the Relationship at subclass level.

## References

### *Limiting references*

*This place does not cover:*

| | |
|---|---|
| Coatings based on polymers of cyclic esters of polyfunctional acids | C09D 131/00 |
| Coatings based on polymers of cyclic anhydrides of unsaturated acids | C09D 135/00 |

### *Application-oriented references*

*Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:*

| | |
|---|---|
| Post-polymerisation treatments | C08F 6/00- C08F 6/28 |
| Applications or uses of polymer compositions in films, e.g. a film of maleic anhydride copolymer | C08J |
| Working-up, compounding, after-treatment of macromolecular compounds | C08J 3/00- C08J 11/28 |

| | |
|---|---|
| Use of Inorganic of non-macromolecular organic substances as compounding ingredients | C08K 3/00- C08K 13/08 |

### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Coatings based on compositions of polymerisable monomers | C09D 4/00 |
| Printing inks | C09D 11/00 |
| Polymer compositions | C08L 37/00 |
| Adhesives | C09J 137/00 |
| Coatings of electrical wires | H01B |
| Encapsulation of solar cells | H01L |

## Special rules of classification

Last place priority rule:

Within each subgroup of this group, in the absence of an indication to the contrary, classification is made in the last appropriate place.

Classification guidance:

Documents are preferably classified according to the examples in the documents, not according to general claims, e.g. if the examples only describe coatings of compositions of diene vinyl furan, but subject matter of the claim is a coating of a composition of a diene copolymer, the document is classified as coating composition of a vinyl furan copolymer C09D 137/00.

**C-Sets classification:**

In this group, C-Sets (#C9Dc, #C9De, #C9Df, #C9Dc(Si) and #C9Df(Si)) are used for classification. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of classification in C09D 101/00.

- If C09D 137/00 relates to a composition and two or more polymers are present, classification is given in the form of C-Sets according to the relative weight percentage of the polymer constituents.
- The polymer in majority is given a symbol as a base symbol, and the polymers in minority are given symbols as subsequent symbols in the form of C-Sets.
- A single symbol is given according to the macromolecular constituent present in the highest proportion.
- If all the constituents are present in equal weight percentage, the composition is classified according to each of these constituents.
- In the case that several polymers can be in majority, separate C-Sets should be made based on each polymer in majority and its component(s) in minority.
- Orthogonal indexing codes C08L 2201/00 - C08L 2555/86 are also given if applicable.

Example 1: A coating of a blend of 60 parts diene vinyl furan copolymer (C09D 137/00) and 40 parts polyamide (C08L 77/00) is classified as (C09D 137/00, C08L 77/00).

Example 2: A coating of a blend of 50 parts diene vinyl furan copolymer (C09D 137/00) and 50 parts polyamide (C09D 177/00) is classified as (C09D 137/00, C08L 37/00), and (C09D 177/00, C08L 37/00).

Example 3: A coating of a composition based on diene vinyl furan copolymer and containing CaCO3 is classified in (C09D 137/00, C08K 3/26). If this composition contains also a polyamide, then the classification will be (C09D 137/00, C08L 77/00, C08K 3/26).

Example 4: A coating of a composition based on a first diene vinyl furan copolymer (C09D 137/00) and containing a second diene vinyl furan copolymer, a phenol and silica is classified as (C09D 137/00, C08L 37/00, C08K 5/13, C08K 3/36) and C08L 2205/025.

Example 5: A coating of a composition containing a polyamide in majority, a polyester and a diene vinyl furan copolymer is classified as (C08L 77/00, C08L 67/00, C08L 37/00) and C08L 2205/03.

Example 6: A coating of compositions containing two polymers of the same dot group, for example compositions of two diene vinyl furan copolymer polymers, are characterised by the orthogonal indexing code C08L 2205/025. The complete classification for such compositions therefore would be (C09D 137/00, C08L 37/00) and C08L 2205/025. The same applies for compositions of two polymers only distinguished by physical properties, e.g. molecular weight or density.

**C-Sets searches:**

C-Sets search queries may be made according to C-Sets classification rules described in C09D 101/00 and related subclasses. In addition, #C8Lz, #C9Dz and #C9Jz Search Rules may be followed to search for polymers with additives in documents classified prior to April 2012.

## Glossary of terms

*In this place, the following terms or expressions are used with the meaning indicated:*

Attention is drawn to the table after title of C09D 123/00.

## Synonyms and Keywords

*In patent documents the following abbreviations are often used:*

Attention is drawn to the table at subclass level.

# C09D 139/00

## Coating compositions based on homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by a single or double bond to nitrogen or by a heterocyclic ring containing nitrogen; Coating compositions based on derivatives of such polymers

## Definition statement

*This place covers:*

Coating compositions based on homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by a single or double bond to nitrogen or by a heterocyclic ring containing nitrogen; Coating compositions based on derivatives of such polymers

## Relationships with other classification places

Attention is drawn to the Relationship at subclass level.

## References

### *Application-oriented references*

*Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:*

| | |
|---|---|
| Post-polymerisation treatments | C08F 6/00- C08F 6/28 |
| Applications or uses of polymer compositions in films | C08J |

| | |
|---|---|
| Working-up, compounding, after-treatment of macromolecular compounds | C08J 3/00- C08J 11/28 |
| Use of Inorganic of non-macromolecular organic substances as compounding ingredients | C08K 3/00- C08K 13/08 |

### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Coatings based on compositions of polymerisable monomers | C09D 4/00 |
| Coating compositions based on polymers containing acrylamide or imide | C09D 133/24 - C09D 133/26 |
| Polymer compositions | C08L 39/00 |
| Adhesives | C09J 139/00 |
| Artificial filaments or fibres | D01F |
| Coatings of electrical wires | H01B |
| Encapsulation of solar cells | H01L |

## Special rules of classification

Further subdivision:

- C09D 139/04

Polymers containing an acrylamide or acrylimide containing a nitrogen containing substituent would be classified in C09D 133/24.

For Copolymers:

- C09D 139/00 may also be given when the monomer described therein is in minority in the copolymer of a coating composition. A coating based on a copolymer of acrylic ester and vinyl pyridine, which has a lower content of vinyl pyridine than acrylic ester, would also be classified in C09D 139/08. Additional classification in C09D 133/08 should be considered.

Last place priority rule:

Within each subgroup of this group, in the absence of an indication to the contrary, classification is made in the last appropriate place.

Classification guidance:

Documents are preferably classified according to the examples in the documents, not according to general claims, e.g. if the examples only describe coatings of compositions of acrylic ester vinyl pyrrolidone copolymers, but subject matter of the claim is a coating of a composition of an acrylic ester copolymer, the document is classified as coating composition of vinyl pyrrolidone copolymer (C09D 139/06)

**C-Sets classification:**

In this group, C-Sets (#C9Dc, #C9De, #C9Df, #C9Dc(Si) and #C9Df(Si)) are used for classification. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of classification in C09D 101/00.

- If C09D 139/00 relates to a composition and two or more polymers are present, classification is given in the form of C-Sets according to the relative weight percentage of the polymer constituents.
- The polymer in majority is given a symbol as a base symbol, and the polymers in minority are given symbols as subsequent symbols in the form of C-Sets.

- A single symbol is given according to the macromolecular constituent present in the highest proportion.
- If all the constituents are present in equal weight percentage, the composition is classified according to each of these constituents.
- In the case that several polymers can be in majority, separate C-Sets should be made based on each polymer in majority and its component(s) in minority.
- Orthogonal indexing codes C08L 2201/00 - C08L 2555/86 are also given if applicable.

Example 1: A coating of a blend of 60 parts vinyl pyrrolidone copolymer (C09D 139/06) and 40 parts polyamide (C08L 77/00) is classified as (C09D 139/06, C08L 77/00).

Example 2: A coating of a blend of 50 parts vinyl pyrrolidone copolymer (C09D 139/06) and 50 parts polyamide (C09D 177/00) is classified as (C09D 139/06, C08L 77/00) and (C09D 177/00, C08L 39/06).

Example 3: A coating of a composition based on vinyl pyrrolidone copolymer and containing CaCO3 is classified as (C09D 139/06, C08K 3/26). If this composition contains also a polyamide, then the classification will be (C09D 139/06, C08L 77/00, C08K 3/26).

Example 4: A coating of a composition based on a first vinyl pyrrolidone copolymer (C09D 139/06) and containing a second vinyl pyrrolidone copolymer, a phenol and silica is classified in (C09D 139/06, C08L 39/06, C08K 5/13, C08K 3/36) and C08L 2205/025.

Example 5: A coating of a composition containing a polyamide in majority, a polyester and a vinyl pyrrolidone copolymer is classified as (C08L 77/00, C08L 67/00, C08L 39/06) and C08L 2205/03.

Example 6: A coating of compositions containing two polymers of the same dot group, for example compositions of two vinyl pyrrolidone copolymers, are characterised by the orthogonal indexing code C08L 2205/025. The complete classification for such compositions therefore would be (C09D 139/06, C08L 39/06) and C08L 2205/025. The same applies for compositions of two polymers only distinguished by physical properties, e.g. molecular weight or density.

**C-Sets searches:**

C-Sets search queries may be made according to C-Sets classification rules described in C09D 101/00 and related subclasses. In addition, #C8Lz, #C9Dz and #C9Jz Search Rules may be followed to search for polymers with additives in documents classified prior to April 2012.

## Glossary of terms

*In this place, the following terms or expressions are used with the meaning indicated:*

Attention is drawn to the table after title of C09D 123/00.

## Synonyms and Keywords

*In patent documents, the following words/expressions are often used as synonyms:*

Attention is drawn to the table at subclass level.

# C09D 141/00

## Coating compositions based on homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by a bond to sulfur or by a heterocyclic ring containing sulfur; Coating compositions based on derivatives of such polymers

### Definition statement

*This place covers:*

Coating compositions based on homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by a bond to sulfur or by a heterocyclic ring containing sulfur; Coating compositions based on derivatives of such polymers

### Relationships with other classification places

Attention is drawn to the Relationship at subclass level.

### References

#### *Application-oriented references*

*Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:*

| | |
|---|---|
| Post-polymerisation treatments | C08F 6/00- C08F 6/28 |
| Applications or uses of polymer compositions in films | C08J |
| Working-up, compounding, after-treatment of macromolecular compounds | C08J 3/00- C08J 11/28 |
| Use of Inorganic of non-macromolecular organic substances as compounding ingredients | C08K 3/00- C08K 13/08 |

#### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Coatings based on compositions of polymerisable monomers | C09D 4/00 |
| Printing inks | C09D 11/00 |
| Polymer compositions | C08L 41/00 |
| Adhesives | C09J 141/00 |
| Artificial filaments or fibres | D01F |
| Coatings of electrical wires | H01B |
| Encapsulation of solar cells | H01L |

### Special rules of classification

Last place priority rule:

Within each subgroup of this group, in the absence of an indication to the contrary, classification is made in the last appropriate place.

Classification guidance:

Documents are preferably classified according to the examples in the documents, not according to general claims, e.g. if the examples only describe coatings of compositions of acrylic ester vinyl thioethanol, but subject matter of the claim is a coating of a composition of an acrylic copolymer, the document is classified as coating composition of a vinyl thioethanol copolymer C09D 141/00.

For Copolymers:

- C09D 141/00 may also be given when the monomer described therein is in minority in the copolymer of a coating composition. A coating based on a copolymer of acrylic ester and vinyl thioethanol which has only a low content of vinyl thioethanol, would be classified in C09D 141/00. Additional classification in C09D 133/08 should be considered.
- In addition, a separate C-Set representing the copolymer that is formed according to the monomers of C08F must also be given.

**C-Sets classification:**

In this group, C-Sets (#C9Dc, #C9De, #C9Df, #C9Dc(Si) and #C9Df(Si)) are used for classification. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of classification in C09D 101/00.

- If C09D 141/00 relates to a composition and two or more polymers are present, classification is given in the form of C-Sets according to the relative weight percentage of the polymer constituents.
- The polymer in majority is given a symbol as a base symbol, and the polymers in minority are given symbols as subsequent symbols in the form of C-Sets.
- A single symbol is given according to the macromolecular constituent present in the highest proportion.
- If all the constituents are present in equal weight percentage, the composition is classified according to each of these constituents.
- In the case that several polymers can be in majority, separate C-Sets should be made based on each polymer in majority and its component(s) in minority.
- Orthogonal indexing codes C08L 2201/00 - C08L 2555/86 are also given if applicable.

Example 1: A coating of a blend of 60 parts acrylic ester vinyl thioethanol copolymer (C09D 141/00) and 40 parts polyamide (C08L 77/00) is classified as (C09D 141/00, C08L 77/00).

Example 2: A coating of a blend of 50 parts acrylic ester vinyl thioethanol copolymer (C09D 141/00) and 50 parts polyamide (C09D 177/00) is classified as (C09D 141/00, C08L 77/00) and (C09D 177/00, C08L 41/00).

Example 3: A coating of a composition based on acrylic ester vinyl thioethanol copolymer and containing CaCO3 is classified as (C09D 141/00, C08K 3/26). If this composition contains also a polyamide, then the classification will be (C09D 141/00, C08L 77/00, C08K 3/26).

Example 4: A coating of a composition based on a first acrylic ester vinyl thioethanol copolymer (C09D 141/00) and containing a second acrylic ester vinyl thioethanol copolymer, a phenol and silica is classified in (C09D 141/00, C08L 41/00, C08K 5/13, C08K 3/36) and C08L 2205/025.

Example 5: A coating of a composition containing a polyamide in majority, a polyester and an acrylic ester vinyl thioethanol copolymer is classified as (C08L 77/00, C08L 67/00, C08L 41/00) and C08L 2205/03.

Example 6: A coating of compositions containing two polymers of the same dot group, for example compositions of an acrylic ester vinyl thioethanol copolymer polymers with two different polyethylenes, are characterised by the orthogonal indexing Code C08L 2205/025. The complete classification for such compositions therefore would be (C09D 141/00, C08L 23/06), C08L 2205/025. The same applies for compositions of two polymers only distinguished by physical properties, e.g. molecular weight or density.

**C-Sets searches:**

C-Sets search queries may be made according to C-Sets classification rules described in C09D and related subclasses. In addition, #C8Lz, #C9Dz and #C9Jz Search Rules may be followed to search for polymers with additives in documents classified prior to April 2012.

## Glossary of terms

*In this place, the following terms or expressions are used with the meaning indicated:*

Attention is drawn to the table after title of C09D 123/00.

## Synonyms and Keywords

*In patent documents the following abbreviations are often used:*

Attention is drawn to the table at subclass level.

# C09D 143/00

## Coating compositions based on homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and containing boron, silicon, phosphorus, selenium, tellurium, or a metal; Coating compositions based on derivatives of such polymers

## Definition statement

*This place covers:*

Coating compositions based on homopolymers or copolymers of compounds corresponding to groups C08F 30/00, C08F 130/00 or C08F 230/00.

## Relationships with other classification places

Attention is drawn to the Relationship at subclass level.

## References

### *Application-oriented references*

*Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:*

| | |
|---|---|
| Post-polymerisation treatments | C08F 6/00- C08F 6/28 |
| Applications or uses of polymer compositions in films | C08J |
| Working-up, compounding, after-treatment of macromolecular compounds | C08J 3/00- C08J 11/28 |
| Use of Inorganic of non-macromolecular organic substances as compounding ingredients | C08K 3/00- C08K 13/08 |

### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Coatings based on compositions of polymerisable monomers | C09D 4/00 |
| Printing inks | C09D 11/00 |
| Coating compositions based on copolymers of ethylene containing heteroatoms according C09D 143/00 | C09D 123/0892 |

| | |
|---|---|
| Coating compositions based on copolymers of propene containing heteroatoms according C09D 143/00 | C09D 123/147 |
| Acrylic coating compositions | C09D 133/00 |
| Polymer compositions | C08L 43/00 |
| Adhesives | C09J 143/00 |
| Artificial filaments or fibres | D01F |
| Coatings of electrical wires | H01B |
| Encapsulation of solar cells | H01L |

## Special rules of classification

Further subdivisions:

- C09D 143/02: Coatings of copolymers of ethylene or propene are not classified here.
- C09D 143/04: Coatings of copolymers of ethylene or propene are not classified here.

For Copolymers:

- C09D 143/00 may also be given when the monomer described therein is in minority in the copolymer of a coating composition. A coating based on a copolymer of acrylic ester and vinyl silane, which has a lower content of vinyl silane than acrylic ester, would also be classified in C09D 143/04. Additional classification in C09D 133/08 should be considered.
- In addition, a separate C-Set representing the copolymer that is formed according to the monomers of C08F must also be given.
- However, coatings based on copolymers where the major comonomer is ethylene or propene, are classified in C09D 123/0892 or C09D 123/147.

Last place priority rule:

Within each subgroup of this group, in the absence of an indication to the contrary, classification is made in the last appropriate place.

Classification guidance:

Documents are preferably classified according to the examples in the documents, not according to general claims, e.g. if the examples only describe coatings of compositions of acrylic ester vinyl silane copolymers, but subject matter of the claim is a coating of a composition of an acrylic ester copolymer, the document is classified as coating composition of vinyl silane copolymer (C09D 143/04).

**C-Sets classification:**

In this group, C-Sets (#C9Dc, #C9De, #C9Df, #C9Dc(Si) and #C9Df(Si)) are used for classification. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of classification in C09D 101/00.

- If C09D 143/00 relates to a composition and two or more polymers are present, classification is given in the form of C-Sets according to the relative weight percentage of the polymer constituents.
- The polymer in majority is given a symbol as a base symbol, and the polymers in minority are given symbols as subsequent symbols in the form of C-Sets.
- A single symbol is given according to the macromolecular constituent present in the highest proportion.
- If all the constituents are present in equal weight percentage, the composition is classified according to each of these constituents.
- In the case that several polymers can be in majority, separate C-Sets should be made based on each polymer in majority and its component(s) in minority.
- Orthogonal indexing codes C08L 2201/00 - C08L 2555/86 are also given if applicable.

Example 1: A coating of a blend of 60 parts vinyl silane copolymer (C09D 143/04) and 40 parts polyamide (C08L 77/00) is classified as (C09D 143/04, C08L 77/00).

Example 2: A coating of a blend of 50 parts vinyl silane copolymer (C09D 143/04) and 50 parts polyamide (C09D 177/00) is classified as (C09D 143/04, C08L 77/00) and (C09D 177/00, C08L 43/04).

Example 3: A coating of a composition based on vinyl silane copolymer and containing CaCO3 is classified as (C09D 143/04, C08K 3/26). If this composition contains also a polyamide, then the classification will be (C09D 143/04, C08L 77/00, C08K 3/26).

Example 4: A coating of a composition based on a first vinyl silane copolymer (C09D 143/04) and containing a second vinyl silane copolymer, a phenol and silica is classified as (C09D 143/04, C08L 43/04, C08K 5/13, C08K 3/36) and C08L 2205/025.

Example 5: A coating of a composition containing a polyamide in majority, a polyester and a vinyl silane copolymer is classified as (C08L 77/00, C08L 67/00, C08L 43/04) and C08L 2205/03.

Example 6: A coating of compositions containing two polymers of the same dot group, for example compositions of two vinyl silane copolymer, are characterised by the orthogonal indexing code C08L 2205/025. The complete classification for such compositions therefore would be (C09D 143/04, C08L 43/04) and C08L 2205/025. The same applies for compositions of two polymers only distinguished by physical properties, e.g. molecular weight or density.

**C-Sets searches:**

C-Sets search queries may be made according to C-Sets classification rules described in C09D 101/00 and related subclasses. In addition, #C8Lz, #C9Dz and #C9Jz Search Rules may be followed to search for polymers with additives in documents classified prior to April 2012.

## Glossary of terms

*In this place, the following terms or expressions are used with the meaning indicated:*

Attention is drawn to the table after title of C09D 123/00.

## Synonyms and Keywords

*In patent documents, the following words/expressions are often used as synonyms:*

Attention is drawn to the table at subclass level.

# C09D 145/00

## Coating compositions based on homopolymers or copolymers of compounds having no unsaturated aliphatic radicals in a side chain, and having one or more carbon-to-carbon double bonds in a carbocyclic or in a heterocyclic system; Coating compositions based on derivatives of such polymers (based on polymers of cyclic esters of polyfunctional acids C09D 131/00; based on polymers of cyclic anhydrides or imides C09D 135/00)

## Definition statement

*This place covers:*

Coatings of (co)polymers of cyclic olefins, e.g. norbornene or bicyclopentadiene, where the cyclic monomer is the major component in the copolymer.

Coating compositions based on homopolymers or copolymers of compounds corresponding to groups C08F 32/00, C08F 132/00, C08F 232/00 or C08F 244/00.

Further subdivision:

C09D 145/02

Coatings of copoymers of coumarone-indene polymers.

## Relationships with other classification places

Attention is drawn to the Relationship at subclass level.

## References

### *Limiting references*

*This place does not cover:*

| | |
|---|---|
| Coatings based on polymers of cyclic esters of polyfunctional acids | C09D 131/00 |
| Coatings based on polymers of cyclic anhydrides or imides | C09D 135/00 |

### *Application-oriented references*

*Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:*

| | |
|---|---|
| Applications or uses of polymer compositions in films | C08J |
| Working-up, compounding, after-treatment of macromolecular compounds | C08J 3/00- C08J 11/28 |
| Use of Inorganic of non-macromolecular organic substances as compounding ingredients | C08K 3/00- C08K 13/08 |

### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Printing inks | C09D 11/00 |
| Coatings based on polymers containing a heterocyclic ring with oxygen | C09D 137/00 |
| Coatings based on copolymers of monomers terminated by a heterocyclic ring containing Nitrogen | C09D 139/00 |
| Polymer compositions | C08L 45/00 |
| Adhesives | C09J 145/00 |
| Artificial filaments or fibres | D01F |
| Coatings of electrical wires | H01B |
| Encapsulation of solar cells | H01L |

## Special rules of classification

Last place priority rule:

Within each subgroup of this group, in the absence of an indication to the contrary, classification is made in the last appropriate place.

Classification guidance:

- Documents are preferably classified according to the examples in the documents, not according to general claims, e.g. if the examples only describe coatings based on polynorbornene, but subject matter of the claim is a coating of polyolefin, the document is classified under coatings of polynorbornene C09D 145/00.

- Specific other monomers can be characterised in C08F.

For Copolymers:

- Copolymers get the symbol of the major component, except if there is a lower group which specifies the comonomer in minority (see also last place rule), e.g. ethylene copolymers (ethylene comonomer in majority) would be classified in C09D 123/0807, and not in C09D 145/00, but ethylene norbornene (norbornene in majority) would be classified in C09D 145/00, not in C09D 123/08.
- In addition, a separate C-Set representing the copolymer that is formed according to the monomers of C08F must also be given.

**C-Sets classification:**

In this group, C-Sets (#C9Dc, #C9De, #C9Df, #C9Dc(Si) and #C9Df(Si)) are used for classification. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of classification in C09D 101/00.

- If C09D 145/00 relates to a composition and two or more polymers are present, classification is given in the form of C-Sets according to the relative weight percentage of the polymer constituents.
- The polymer in majority is given a symbol as a base symbol, and the polymers in minority are given symbols as subsequent symbols in the form of C-Sets.
- A single symbol is given according to the macromolecular constituent present in the highest proportion.
- If all the constituents are present in equal weight percentage, the composition is classified according to each of these constituents.
- In the case that several polymers can be in majority, separate C-Sets should be made based on each polymer in majority and its component(s) in minority.
- Orthogonal indexing codes C08L 2201/00 - C08L 2555/86 are also given if applicable.

Example 1: A coating of a blend of 60 parts poly-norbornene (C09D 145/00) and 40 parts polyamide (C08L 77/00) is classified as (C09D 145/00, C08L 77/00).

Example 2: A coating of a blend of 50 parts poly norbornene (C09D 145/00) and 50 parts polyamide (C09D 177/00) is classified as (C09D 145/00, C08L 77/00) and (C09D 177/00, C08L 45/00).

Example 3: A coating based on a composition of polynorbornene and containing CaCO3 is classified as (C09D 145/00, C08K 3/26). If this composition contains also a polyamide, then the classification will be (C09D 145/00, C08L 77/00, C08K 3/26).

Example 4: A coating based on a composition based on a first polynorbornene (C09D 145/00) and containing a second polynorbornene, a phenol and silica is classified as (C09D 145/00, C08L 45/00, C08K 5/13, C08K 3/36) and C08L 2205/025.

Example 5: A coating based on a composition containing a polyamide in majority, a polyester and a polynorbornene is classified as (C09D 177/00, C08L 67/00, C08L 45/00) and C08L 2205/03.

Example 6: Coatings of compositions containing two polymers of the same dot group, for example compositions of two polynorbornenes, are characterised by the orthogonal indexing code C08L 2205/025. The complete classification for such compositions therefore would be (C09D 145/00, C08L 45/00) and C08L 2205/025. The same applies for compositions of two polymers only distinguished by physical properties (e.g. molecular weight, density etc.)

**C-Sets searches:**

C-Sets search queries may be made according to C-Sets classification rules described in C09D 101/00 and related subclasses. In addition, #C8Lz, #C9Dz and #C9Jz Search Rules may be followed to search for polymers with additives in documents classified prior to April 2012.

## Glossary of terms

*In this place, the following terms or expressions are used with the meaning indicated:*

Attention is drawn to the table after title of C09D 123/00.

## Synonyms and Keywords

*In patent documents the following abbreviations are often used:*

Attention is drawn to the table at subclass level.

# C09D 147/00

**Coating compositions based on homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, at least one having two or more carbon-to-carbon double bonds; Coating compositions based on derivatives of such polymers (C09D 145/00 takes precedence; based on conjugated diene rubbers C09D 109/00 - C09D 121/00)**

## Definition statement

*This place covers:*

Coating compositions of homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, at least one having two or more carbon-to-carbon double bonds, i.e. unconjugated dienes

Coating compositions of derivatives of such polymers.

## Relationships with other classification places

Compositions of unconjugated diene polymers or their derivatives are classified in C08L 47/00.

Adhesive compositions comprising the polymers of C08L 47/00 or their derivatives are classified in C09J 147/00.

Coating compositions of coumarone-indene polymers are classified in C09D 145/02.

## References

### *Limiting references*

*This place does not cover:*

| | |
|---|---|
| Compositions based on coinjugated diene rubbers | C09D 109/00 - C09D 121/00 |
| Compositions based on copolymers of compounds having no unsaturated aliphatic radicals in a side chain and having one or more carbon-to-carbon double bonds in a carbocyclic or in a heterocyclic system | C09D 145/00 |

### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Compositions of conjugated diene polymers | C08L 7/00 - C08L 21/00 |
| Compositions of copolymers of ethene-propene or ethene-propene-diene, e.g. EPM or EPDM rubber | C08L 23/16 |
| Compositions of copolymers of isobutene with minor part of conjugated dienes monomers, e.g. butyl rubber | C08L 23/22 |

| | |
|---|---|
| Compositions of coumarone-indene polymers | C08L 45/02 |

## Special rules of classification

**C-Sets classification:**

In this group, C-Sets (#C9Dc, #C9De, #C9Df, #C9Dc(Si) and #C9Df(Si)) are used for classification. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of classification in C09D 101/00.

**C-Sets searches:**

C-Sets search queries may be made according to C-Sets classification rules described in C09D 101/00 and related subclasses. In addition, #C8Lz, #C9Dz and #C9Jz Search Rules may be followed to search for polymers with additives in documents classified prior to April 2012.

## Synonyms and Keywords

*In patent documents, the following abbreviations are often used:*

| | |
|---|---|
| ABS | Acrylonitrile butadiene styrene |
| BR | Butadiene rubber |
| CR | Chloroprene rubber |
| EPDM | Ethene propene diene rubber |
| EPM | Ethene propene rubber |
| IIR | Butyl rubber |
| IR | Isoprene rubber |
| NBR | Acrylonitrile butadiene rubber |
| NR | Natural rubber |
| SAN | Styrene acrylonitrile copolymer |
| SBR | Styrene butadiene rubber |

# C09D 149/00

### Coating compositions based on homopolymers or copolymers of compounds having one or more carbon-to-carbon triple bonds; Coating compositions based on derivatives of such polymers

## Definition statement

*This place covers:*

Coating compositions based on homopolymers or copolymers of compounds corresponding to groups C08F 38/00, C08F 138/00 and C08F 238/00.

## Relationships with other classification places

Attention is drawn to the Relationship at subclass level.

## References

### *Application-oriented references*

*Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:*

| | |
|---|---|
| Applications or uses of polymer compositions in films | C08J |
| Working-up, compounding, after-treatment of macromolecular compounds | C08J 3/00- C08J 11/28 |
| Use of Inorganic of non-macromolecular organic substances as compounding ingredients | C08K 3/00- C08K 13/08 |

### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Polymer compositions | C08L 49/00 |
| Applications or uses of polymer compositions in adhesives | C09J 149/00 |
| Artificial filaments or fibres | D01F |
| Coatings of electrical wires | H01B |
| Encapsulation of solar cells | H01L |

## Special rules of classification

Last place priority rule:

Within each subgroup of this group, in the absence of an indication to the contrary, classification is made in the last appropriate place.

Classification guidance:

Documents are preferably classified according to the examples in the documents, not according to general claims, e.g. if the examples only describe coatings based on polyacetylene, but subject matter of the claim is a coating of polyolefin, the document is classified under coatings of polyacetylene (C09D 149/00).

For Copolymers:

In a coating composition comprising a copolymer, the copolymer is given the symbol on the basis of the major component, except if there is a lower group which specifies the comonomer in minority (see also last place rule), e.g. ethylene copolymers (ethylene comonomer in majority) would be classified in C09D 123/0807, and not in C09D 149/00, but ethylene acetylene (acetylene in majority) would be classified in C09D 149/00, not in C09D 123/08.

**C-Sets classification:**

In this group, C-Sets (#C9Dc, #C9De, #C9Df, #C9Dc(Si) and #C9Df(Si)) are used for classification. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of classification in C09D 101/00.

- If C09D 149/00 relates to a composition and two or more polymers are present, classification is given in the form of C-Sets according to the relative weight percentage of the polymer constituents.
- The polymer in majority is given a symbol as a base symbol, and the polymers in minority are given symbols as subsequent symbols in the form of C-Sets.
- A single symbol is given according to the macromolecular constituent present in the highest proportion.

- If all the constituents are present in equal weight percentage, the composition is classified according to each of these constituents.
- In the case that several polymers can be in majority, separate C-Sets should be made based on each polymer in majority and its component(s) in minority.
- Orthogonal indexing codes C08L 2201/00 - C08L 2555/86 are also given if applicable.

Example 1: A coating of a blend of 60 parts polyacetylene (C09D 149/00) and 40 parts polyamide (C08L 77/00) is classified as (C09D 149/00, C08L 77/00).

Example 2: A coating of a blend of 50 parts poly acetylene (C09D 149/00) and 50 parts polyamide (C09D 177/00) is classified as (C09D 149/00, C08L 77/00) and (C09D 177/00, C08L 49/00).

Example 3: A coating based on a composition of polyacetylene and containing CaCO3 is classified as (C09D 149/00, C08K 3/26). If this composition contains also a polyamide, then the classification will be (C09D 149/00, C08L 77/00, C08K 3/26).

Example 4: A coating based on a composition based on a first polyacetylene (C09D 149/00) and containing a second polyacetylene, a phenol and silica is classified as (C09D 149/00, C08L 49/00, C08K 5/13, C08K 3/36) and C08L 2205/025.

Example 5: A coating based on a composition containing a polyamide in majority, a polyester and a polyacetylene is classified as (C09D 177/00, C08L 67/00, C08L 49/00) and C08L 2205/03.

Example 6: Coatings of compositions containing two polymers of the same dot group, for example compositions of two polyacetylenes, are characterised by the orthogonal indexing code C08L 2205/025. The complete classification for such compositions therefore would be (C09D 149/00, C08L 49/00) and C08L 2205/025. The same applies for compositions of two polymers only distinguished by physical properties (e.g. molecular weight, density etc.)

**C-Sets searches:**

C-Sets search queries may be made according to C-Sets classification rules described in C09D and related subclasses. In addition, #C8Lz, #C9Dz and #C9Jz Search Rules may be followed to search for polymers with additives in documents classified prior to April 2012.

## Glossary of terms

*In this place, the following terms or expressions are used with the meaning indicated:*

Attention is drawn to the table after title of C09D 123/00.

## Synonyms and Keywords

*In patent documents the following abbreviations are often used:*

Attention is drawn to the table at subclass level.

# C09D 151/00

## Coating compositions based on graft polymers in which the grafted component is obtained by reactions only involving carbon-to-carbon unsaturated bonds (based on ABS polymers C09D 155/02); Coating compositions based on derivatives of such polymers

## Definition statement

*This place covers:*

Coating compositions comprising graft polymers of C08F 251/00-C08F 292/00

## Relationships with other classification places

Graft copolymers in which the grafted component is obtained by reactions involving C=C per se are classified in C08F 251/00-C08F 292/00.

Compositions (other than coating or adhesive) comprising a grafted polymer in majority and other polymer(s) are classified in C08L 51/00-C08L 51/10.

## References

### *Limiting references*

*This place does not cover:*

| | |
|---|---|
| Coating compositions comprising ABS polymers | C09D 155/02 |

### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Coating compositions comprising an unsaturated monomer and a polymer (grafting in situ) | C09D 4/06, C09D 159/00 - C09D 187/00 |
| Coating compositions comprising block or graft copolymers containing polysiloxane sequences (not obtained by reaction of C=C monomer(s) onto polysiloxane) | C09D 183/10 |
| Coating compositions comprising graft polymers obtained by interreacting polymers in the absence of monomers (Graft polymer of C08G 81/00 - C08G 81/028) | C09D 187/005 |

## Special rules of classification

For coating compositions comprising grafted rubbers, several symbols are given if the rubber is specific.

- if the rubber is EPR: C09D 151/04 and C09D 151/06
- if the rubber is EPDM,SBR or acrylate rubber: C09D 151/04 and C09D 151/003.

**C-Sets classification:**

In this group, C-Sets (#C9Dc, #C9De, #C9Df, #C9Dc(Si) and #C9Df(Si))are used for classification. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of classification in C09D 101/00.

**C-Sets searches:**

C-Sets search queries may be made according to C-Sets classification rules described in C09D 101/00 and related subclasses. In addition, #C8Lz, #C9Dz and #C9Jz Search Rules may be followed to search for polymers with additives in documents classified prior to April 2012.

# C09D 153/00

## Coating compositions based on block copolymers containing at least one sequence of a polymer obtained by reactions only involving carbon-to-carbon unsaturated bonds; Coating compositions based on derivatives of such polymers

### Definition statement

*This place covers:*

Coating compositions of block polymers of groups C08F 293/00-C08F 297/08.

### Relationships with other classification places

Block polymers obtained by reactions only involving C=C per se are classified in C08F 293/00-C08F 297/08.

Compositions (general, adhesive or coating) comprising block polymers in which the block polymer is in minority are classified in C08L 53/00-C08L 53/025 .

### References

#### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Coating compositions comprising block or graft copolymers containing polysiloxane sequences (not obtained by reaction of C=C monomer(s) onto polysiloxane) | C09D 183/10 |
| Coating compositions comprising block polymers obtained by interreacting polymers in the absence of monomers, i.e. block polymer of C08G 81/00 - C08G 81/028 | C09D 187/005 |

### Special rules of classification

Coating composition:

- C09D 153/005 and C09D 153/025 cover coating compositions comprising modified block polymers. In particular, coating compositions comprising hydrogenated styrene-diene block copolymers are classified in C09D 153/025.
- Coating compositions based on homopolymers or copolymers, obtained by polymerisation reactions only involving carbon-to-carbon unsaturated bonds, not provided for in groups C09D 123/00 - C09D 153/00.

**C-Sets classification:**

In this group, C-Sets (#C9Dc, #C9De, #C9Df, #C9Dc(Si) and #C9Df(Si))are used for classification. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of classification in C09D 101/00.

**C-Sets searches:**

C-Sets search queries may be made according to C-Sets classification rules described in C09D 101/00 and related subclasses. In addition, #C8Lz, #C9Dz and #C9Jz Search Rules may be followed to search for polymers with additives in documents classified prior to April 2012.

# C09D 155/00

## Coating compositions based on homopolymers or copolymers, obtained by polymerisation reactions only involving carbon-to-carbon unsaturated bonds, not provided for in groups C09D 123/00 - C09D 153/00

### Definition statement

*This place covers:*

Coating compositions based on homopolymers or copolymers obtained by polymerisation reactions involving only carbon-to-carbon unsaturated bonds that are not classified in the groups C09D 123/00 - C09D 153/00 and those homopolymers or copolymers being classified as such in C08L 55/00 subgroups.

### References

#### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Polymerisation by the diene synthesis | C08F 2/60 |
| ABS polymers per se | C08F 279/04 |
| Macromolecular compounds obtained by polymerising monomers on to polymers modified by introduction of aliphatic unsaturated end or side groups | C08F 290/00 - C08F 290/14 |
| Polymeric compositions of macromolecular compounds obtained by polymerising monomers on to polymers modified by introduction of aliphatic unsaturated end or side groups | C08L 55/00 - C08L 55/04 |

### Special rules of classification

**C-Sets classification:**

In this group, C-Sets (#C9Dc, #C9De, #C9Df, #C9Dc(Si) and #C9Df(Si)) are used for classification. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of classification in C09D 101/00.

**C-Sets searches:**

C-Sets search queries may be made according to C-Sets classification rules described in C09D 101/00 and related subclasses. In addition, #C8Lz, #C9Dz and #C9Jz Search Rules may be followed to search for polymers with additives in documents classified prior to April 2012.

# C09D 157/00

## Coating compositions based on unspecified polymers obtained by reactions only involving carbon-to-carbon unsaturated bonds

### Definition statement

*This place covers:*

Coating compositions of polymers obtained by reactions only involving carbon-to-carbon unsaturated bonds which are not limited to a particular polymer type as defined in groups C09D 107/00-C09D 155/00.

Coating compositions of polymers obtained by reactions only involving carbon-to-carbon unsaturated bonds which are not specific enough as to fit in the preceding groups C09D 107/00-C09D 155/00.

## References

### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Specific polymer coating compositions | C09D 107/00 - C09D 155/00 |

## Special rules of classification

Classification guidance:

- The use of C09D 157/00-C09D 157/12 groups should be avoided by classifying the specific examples, whenever practicable, in the corresponding groups of C09D 107/00-C09D 155/00.
- Documents are preferably classified according to the examples in the documents, not according to general claims.

**C-Sets classification:**

In this group, C-Sets (#C9Dc, #C9De, #C9Df, #C9Dc(Si) and #C9Df(Si)) are used for classification. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of classification in C09D 101/00.

**C-Sets searches:**

C-Sets search queries may be made according to C-Sets classification rules described in C09D 101/00 and related subclasses. In addition, #C8Lz, #C9Dz and #C9Jz Search Rules may be followed to search for polymers with additives in documents classified prior to April 2012.

# C09D 157/08

### containing halogen atoms

## References

### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Coating compositions of (co)polymers of unsaturated halogen containing monomers as defined in | C09D 127/00 |

# C09D 157/10

### containing oxygen atoms

## References

### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Polysaccharides | C09D 101/00 - C09D 105/00 |
| Unsaturated alcohols, ethers, ketones, acetals, ketals | C09D 129/00 |
| Saturated carboxylic acid, carbonic acid or haloformic acid esters of unsaturated alcohols | C09D 131/00 |
| Unsaturated carboxylic acids, esters | C09D 133/00 |

| | |
|---|---|
| Unsaturated dicarboxylic acids, esters, anhydrides | C09D 135/00 |
| Unsaturated aliphatic radicals, terminated by a heterocyclic ring containing oxygen | C09D 137/00 |

# C09D 157/12

## containing nitrogen atoms

### References

#### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Polymers of unsaturated nitriles amides or imides | C09D 133/00 |
| Unsaturated dicarboxylic amides, imides, nitriles | C09D 135/00 |
| Unsaturated aliphatic radicals, terminated by a heterocyclic ring containing nitrogen | C09D 139/00 |

# C09D 159/00

## Coating compositions based on polyacetals; Coating compositions based on derivatives of polyacetals

### Definition statement

*This place covers:*

These subgroups cover:

Coating composition of polyacetals, which are addition polymers of aldehydes or cyclic oligomers thereof or of ketones and correspond to groups C08G 2/00 or their subgroups.

### References

#### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Coating of polyvinyl acetals | C09D 129/04 |

### Special rules of classification

Classification guidance:

When a document specifies coating of polyacetal in general, or both homopolyacetals and copolyacetals, classification is done in the main group C09D 159/00 only when the document specifically mentions homopolyacetals or copolyacetals, then classification in C09D 159/02 or C09D 159/04 is given.

**C-Sets classification:**

In this group, C-Sets (#C9Dc, #C9De, #C9Df, #C9Dc(Si) and #C9Df(Si)) are used for classification. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of classification in C09D 101/00.

**C-Sets searches:**

C-Sets search queries may be made according to C-Sets classification rules described in C09D 101/00 and related subclasses. In addition, #C8Lz, #C9Dz and #C9Jz Search Rules may be followed to search for polymers with additives in documents classified prior to April 2012.

# C09D 161/00

## Coating compositions based on condensation polymers of aldehydes or ketones (with polyalcohols C09D 159/00; with polynitriles C09D 177/00); Coating compositions based on derivatives of such polymers

## Definition statement

*This place covers:*

Coatings compositions based on condensation polymers of

- aldehydes or ketones with polyalcohols which correspond to C08G 4/00,
- aldehydes or ketones only which correspond to C08G 6/00-C08G 6/02,
- aldehydes or ketones with phenols only which correspond to C08G 8/00-C08G 8/38,
- aldehydes or ketones with aromatic hydrocarbons or halogenated aromatic hydrocarbons only which correspond to C08G 10/00-C08G 10/06,
- aldehydes or ketones with only compounds containing hydrogen attached to nitrogen which correspond to C08G 12/00-C08G 12/46,
- aldehydes or ketones corresponding to C08G 14/00-C08G 16/06.

## References

### *Limiting references*

*This place does not cover:*

| | |
|---|---|
| Coatings compositions based on condensation polymers of aldehydes or ketones with polyalcohols | C09D 159/00 |
| Coatings compositions based on condensation polymers of aldehydes or ketones with polynitriles | C09D 177/00 |

### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Application in or for layered products | B32B |
| Peptides | C07K |
| Compounding ingredients | C08K |

## Special rules of classification

**C-Sets classification:**

In this group, C-Sets (#C9Dc, #C9De, #C9Df, #C9Dc(Si) and #C9Df(Si)) are used for classification. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of classification in C09D 101/00.

**C-Sets searches:**

C-Sets search queries may be made according to C-Sets classification rules described in C09D 101/00 and related subclasses. In addition, #C8Lz, #C9Dz and #C9Jz Search Rules may be followed to search for polymers with additives in documents classified prior to April 2012.

# C09D 163/00

## Coating compositions based on epoxy resins; Coating compositions based on derivatives of epoxy resins

### Definition statement

*This place covers:*

Coating compositions based on polycondensates having more than one epoxy group per molecules, with or without other components.

### Relationships with other classification places

Compositions based on epoxy resins are classified in C08L 63/00.

Adhesive compositions based on epoxy resins are classified in C09J 163/00.

### References

#### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Coating compositions, e.g. paints, varnishes or lacquers, characterised by their physical nature or the effects produced or filling pastes | C09D 5/00- C09D 5/44 |
| Features of coating compositions, not provided for in groups C09D 5/00 | C09D 7/00, C09D 7/20 - C09D 7/80 |

### Special rules of classification

**C-Sets classification:**

In this group, C-Sets (#C9Dc, #C9De, #C9Df, #C9Dc(Si) and #C9Df(Si)) are used for classification. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of classification in C09D 101/00.

- If C09D 163/00 relates to a composition and two or more polymers are present, classification is given in the form of C-Sets according to the relative weight percentage of the polymer constituents.
- The polymer in majority is given a symbol as a base symbol, and the polymers in minority are given symbols as subsequent symbols in the form of C-Sets.
- A single symbol is given according to the macromolecular constituent present in the highest proportion.
- If all the constituents are present in equal weight percentage, the composition is classified according to each of these constituents.
- In the case that several polymers can be in majority, separate C-Sets should be made based on each polymer in majority and its component(s) in minority.
- Orthogonal indexing codes C08L 2201/00 - C08L 2555/86 are also given if applicable.

Example 1: A coating composition comprising a blend of 60 parts non-specified epoxy resin (C09D 163/00) and 40 parts polyamide (C08L 77/00) is classified as (C09D 163/00, C08L 77/00).

Example 2: A coating composition comprising a blend of 50 parts non-specified epoxy resin (C09D 163/00) and 50 parts Novolak epoxy resin (C09D 163/04) is classified as (C09D 163/00, C08L 63/04), (C09D 163/04, C08L 63/00) and C08L 2205/02.

Example 3: A coating composition based of a polyepoxide and containing CaCO3 is classified as (C09D 163/00, C08K 3/26). If this composition contains also a polyamide, then the classification will be (C09D 163/00, C08L 77/00, C08K 3/26).

**C-Sets searches:**

C-Sets search queries may be made according to C-Sets classification rules described in C09D 101/00 and related subclasses. In addition, #C8Lz, #C9Dz and #C9Jz Search Rules may be followed to search for polymers with additives in documents classified prior to April 2012.

## Glossary of terms

*In this place, the following terms or expressions are used with the meaning indicated:*

| | |
|---|---|
| Coating | Paint |
| Lacquer | Varnish |

## Synonyms and Keywords

| | |
|---|---|
| Bisphenol A | 4,4'-(Propane-2,2-diyl)diphenol |
| Bisphenol F | 2-[(2-Hydroxyphenyl)methyl]phenol |
| Bisphenol S | 4-(4-Hydroxyphenyl)sulfonylphenol |
| DGEBA | Diglycidyl ether of Bisphenol A |

# C09D 163/04

### Epoxynovolacs

## Definition statement

*This place covers:*

Coating compositions comprising aromatic epoxy resins, which are multifunctional (three functions or more per molecule), from the condensation of phenol-formaldehyde resins and epichlorhydrin.

## References

### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Epoxy resins containing three or more epoxy groups per molecule | C08G 59/32 - C08G 59/38 |

## Special rules of classification

Attention is drawn to the Rules of C09D 163/00 for mixtures (C-Sets, Indexing Codes).

## Synonyms and Keywords

| | |
|---|---|
| Novolak | Novolac |

# C09D 163/06

## Triglycidylisocyanurates

### Definition statement

*This place covers:*

Coating compositions comprising cyclic heteroaromatic resin with three glycidyl groups: from the reaction of cyanuric acid with excess epichlorhydrin.

### References

#### *Informative references*

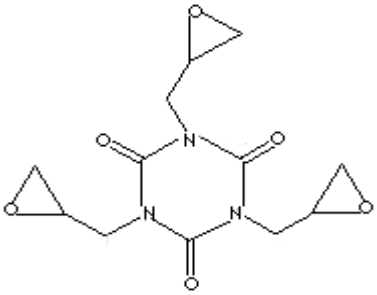
*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Epoxy compounds containing three or more epoxy groups, heterocyclic compounds | C08G 59/3236 |
| Compositions of triglycidylisocyanurates | C08L 63/06 |

### Special rules of classification

Attention is drawn to the Rules of C09D 163/00 for mixtures (C-Sets, Indexing Codes).

### Synonyms and Keywords

| | |
|---|---|
| Teroxirone, tris(2,3-epoxypropyl) isocyanurate, TGIC or TEPIC |  |

# C09D 163/08

## Epoxidised polymerised polyenes

### Definition statement

*This place covers:*

Coating compositions comprising macromolecular unsaturated compounds, which are epoxidised in a further step, e.g. oxidation by $H_2O_2$, such as fatty acid-based polymers or epoxidized rubbers

### References

#### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Epoxy resins obtained by epoxydation of unsaturated precursor | C08G 59/027 |
| Compositions of epoxidised polymersied polyenes | C08L 63/08 |

# C09D 163/10

## Epoxy resins modified by unsaturated compounds

### Definition statement

*This place covers:*

coating compositions comprising epoxy resins chemically modified by the reaction of unsaturated compounds

### References

#### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Epoxy-functional Polycondensates modified by chemical after treatment | C08G 59/14 |
| Epoxy-functional Polycondensates modified by chemical after treatment, with unsaturated monoacids | C08G 59/1461 |
| Epoxy-functional Polycondensates modified by chemical after treatment, with acrylic or methacrylic acids | C08G 59/1466 |
| Epoxy-functional Polycondensates modified by chemical after treatment, with fatty acids | C08G 59/1472 |

# C09D 165/00

## Coating compositions based on macromolecular compounds obtained by reactions forming a carbon-to-carbon link in the main chain (C09D 107/00 - C09D 157/00, C09D 161/00 take precedence); Coating compositions based on derivatives of such polymers

### Definition statement

*This place covers:*

Coating compositions, e.g. paints, varnishes, lacquers based on polymers (I) obtained by reactions forming a carbon-carbon bond in the main chain other than polymers (II) obtained by reactions only involving the polyaddition of carbon-to-carbon unsaturated bonds (wherein in the latter case the reactive carbon-carbon group stays intact without cleavage of fragments). Said polymers (I) are themselves classified in C08G 61/00-C08G 61/127. The coating compositions comprise either other macromolecular compounds and/or other ingredients.

### Relationships with other classification places

Relationship with other subclasses of classes C08 and C09:

Macromolecular compounds per se obtained by reactions only involving the polyaddition of carbon-to-carbon unsaturated bonds (addition polymers wherein the reactive carbon-carbon group stays intact without cleavage of fragments) are classified in C08F. Compositions based on monomers of such polymers are treated in C08F, as well.

This main group includes metathesis polymerization products, but it does not include common addition polymers such as polymethacrylate.

Macromolecular compounds obtained by reactions forming a carbon-carbon bond in the main chain other than polymers obtained by reactions only involving the polyaddition of carbon-to-carbon unsaturated bonds are classified in C08G 61/00 and subgroups. Compositions based on monomers of such polymers are also put in C08G 61/00 and subgroups.

Use or choice of inorganic or non-macromolecular organic materials as compounding agents are classified in C08K, any macromolecular components are classified in C08L.

Relationship with other main groups of the same subclass C09D:

Coating compositions based on polymers prepared by condensation reactions of aldehydes or ketones with phenols only are classified in groups C09D 161/04 - C09D 161/16, since C09D 161/00-C09D 161/34 takes preference. For the same reasons, coating compositions based on condensation polymers of aldehydes or ketones only are classified in C09D 161/02. Coating compositions of polymers, which may otherwise be formed by carbon-carbon bond formation, but which are prepared by condensation reactions other than those involving the formation of carbon-carbon bonds in the main chain are put in the appropriate groups, e.g. C09D 179/04 for polypyrroles formed from amines and polyketones. Coating compositions based on polyketones are classified in C09D 173/00.

Further aspects:

In cases where a coating composition contains an organic non-macromolecular compound but is not based on that compound, and such a compound is of interest, classification could be made in subclass C08K or as an additive in group C08J 3/00, e.g. C08J 3/24 for crosslinking agents or C09D 7/40. This may be in addition to classification in C09D 101/00-C09D 201/00.

## References

### *Limiting references*

*This place does not cover:*

Attention is drawn to the References at subclass level.

| | |
|---|---|
| Coating compositions based on rubbers or on their derivatives | C09D 107/00 - C09D 157/00 |
| Coating compositions based on condensation polymers of aldehydes or ketones | C09D 161/00 |

### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Electrically conductive paint compositions | C09D 5/24 |
| Catalysts in general | B01J |
| Polyacetylenes prepared by polyaddition reactions; Compositions or coating compositions comprising such polymers | C08F 38/02, C08L 49/00, C09D 149/00 |
| Condensation polymers of aldehydes with phenols only; Compositions or coating compositions comprising such polycondensates | C08G 8/04, C08L 61/06, C09D 161/06 |
| Condensation polymers of aldehydes with aromatic hydrocarbons or halogenated aromatic hydrocarbons only; Compositions or coating compositions comprising such polycondensates | C08G 10/02, C08L 61/18, C09D 161/18 |
| Macromolecular compounds obtained by reactions forming a carbon-to-carbon link in the main chain of the macromolecule | C08G 61/00 - C08G 61/127 |
| Poly(ether ketones) obtained by reactions forming an ether link in the main chain of the macromolecule; Compositions or coating compositions comprising such polycondensates | C08G 65/4012, C08L 71/00, C09D 171/00 |
| Polycondensates having nitrogen-containing heterocyclic rings in the main chain of the macromolecules obtained by reactions forming a linkage containing nitrogen, including polypyrroles; Compositions or coating compositions comprising such polycondensates | C08G 73/06, C08L 79/04, C09D 179/04 |

| | |
|---|---|
| Complementary aspects concerning C08G 61/00 | C08G 2261/00 - C08G 2261/964 |
| Preparation of ion-exchange films, membrane, and diaphragms | C08J 5/2256 |
| Luminescent, e.g. electroluminescent or chemiluminescent materials containing organic luminescent materials | C09K 11/06, C09K 2211/14 - C09K 2211/1491 |
| Conductors characterised by the conductive material: Conductive polymers | H01B 1/124 |
| Electrode materials selected from organic compounds | H01M 4/60 |
| Fuel cells, electrolyte layers or solid electrolyte capacitors, solid polymeric electrolyte materials for accumulators | H01M 8/1018, H01G 9/025, H01M 2300/0082, H01M 10/0565 |
| Solid state devices using polymeric materials as the active part, or using a combination of organic materials including organic polymers with other materials as the active part | H10K 85/10 |

## Special rules of classification

**C-Sets classification:**

In this group, C-Sets (#C9Dc, #C9De, #C9Df, #C9Dc(Si) and #C9Df(Si)) are used for classification. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of classification in C09D 101/00.

**C-Sets searches:**

C-Sets search queries may be made according to C-Sets classification rules described in C09D 101/00 and related subclasses. In addition, #C8Lz, #C9Dz and #C9Jz Search Rules may be followed to search for polymers with additives in documents classified prior to April 2012.

## Glossary of terms

*In this place, the following terms or expressions are used with the meaning indicated:*

| | |
|---|---|
| Addition polymers | An addition polymer is a polymer which is formed by an addition reaction, where monomers bond together via rearrangement of bonds without the loss of any atom or molecule. This is in contrast to a condensation polymer which is formed by a condensation reaction where a molecule, such as water, is lost during the formation. |
| Condensation polymers | A condensation polymer is a polymer in which water or some other simple molecule is eliminated from 2 or more monomer molecules as they combine to form the polymer. |

## Synonyms and Keywords

*In patent documents, the following abbreviations are often used:*

| | |
|---|---|
| ADMET | Acyclic diene metathesis |
| ROMP | Ring-opening metathesis polymerisation |

# C09D 167/00

## Coating compositions based on polyesters obtained by reactions forming a carboxylic ester link in the main chain (based on polyester-amides C09D 177/12; based on polyester-imides C09D 179/08); Coating compositions based on derivatives of such polymers

## Definition statement

*This place covers:*

Coating compositions wherein the major component is a polymer of C08G 63/00.

## References

### *Limiting references*

*This place does not cover:*

| | |
|---|---|
| Coatings based on polyester-amides | C09D 177/12 |
| Coatings based on polyester-imides | C09D 179/08 |

### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Coating compositions characterized by their physical nature or their effects produced | C09D 5/00 |
| Layered products comprising polyesters | B32B 27/36 |
| Coatings on shaped materials of macromolecular compounds | C08J 7/0427 |
| Polymer compositions of polyesters | C08L 67/00 |
| Adhesive compositions of polyesters | C09J 167/00 |

## Special rules of classification

**C-Sets classification:**

In this group, C-Sets (#C9Dc, #C9De, #C9Df, #C9Dc(Si) and #C9Df(Si)) are used for classification. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of classification in C09D 101/00.

**C-Sets searches:**

C-Sets search queries may be made according to C-Sets classification rules described in C09D 101/00 and related subclasses. In addition, #C8Lz, #C9Dz and #C9Jz Search Rules may be followed to search for polymers with additives in documents classified prior to April 2012.

## Glossary of terms

*In this place, the following terms or expressions are used with the meaning indicated:*

| | |
|---|---|
| PBT | Polybutylene terephthalate |
| PCL | Polycaprolactone |
| PEA | Polyethylene adipate |
| PEN | Polyethylene naphthalate |
| PET | Polyethylene terephthalate |

| | |
|---|---|
| PGA | Polyglycolic acid |
| PHA | Polyhydroxyalkanoate |
| PLA | Polylactic acid |
| PTT | Polytrimethylene terephthalate |

# C09D 169/00

## Coating compositions based on polycarbonates; Coating compositions based on derivatives of polycarbonates

### Definition statement

*This place covers:*

Coating compositions wherein the major component is a polymer of C08G 64/00.

### References

#### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Layered products comprising polycarbonates | B32B 27/00 |
| Coatings on shaped materials of macromolecular compounds | C08J 7/0427 |
| Polymer compositions of polycarbonates | C08L 69/00 |
| Adhesive compositions of polycarbonates | C09J 169/00 |
| Polycarbonate record carriers | G11B 2007/25304 |

### Special rules of classification

**C-Sets classification:**

In this group, C-Sets (#C9Dc, #C9De, #C9Df, #C9Dc(Si) and #C9Df(Si)) are used for classification. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of classification in C09D 101/00.

**C-Sets searches:**

C-Sets search queries may be made according to C-Sets classification rules described in C09D 101/00 and related subclasses. In addition, #C8Lz, #C9Dz and #C9Jz Search Rules may be followed to search for polymers with additives in documents classified prior to April 2012.

## C09D 171/00

**Coating compositions based on polyethers obtained by reactions forming an ether link in the main chain (based on polyacetals C09D 159/00; based on epoxy resins C09D 163/00; based on polythioether-ethers C09D 181/02; based on polyethersulfones C09D 181/06); Coating compositions based on derivatives of such polymers**

### References

#### *Limiting references*

*This place does not cover:*

| | |
|---|---|
| Coatings based on polyacetals | C09D 159/00 |
| Coatings based on epoxy resins | C09D 163/00 |
| Coatings based on polythioether-ethers | C09D 181/02 |
| Coatings based on polyethersulfones | C09D 181/06 |

### Special rules of classification

**C-Sets classification:**

In this group, C-Sets (#C9Dc, #C9De, #C9Df, #C9Dc(Si) and #C9Df(Si)) are used for classification. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of classification in C09D 101/00.

**C-Sets searches:**

C-Sets search queries may be made according to C-Sets classification rules described in C09D 101/00 and related subclasses. In addition, #C8Lz, #C9Dz and #C9Jz Search Rules may be followed to search for polymers with additives in documents classified prior to April 2012.

## C09D 173/00

**Coating compositions based on macromolecular compounds obtained by reactions forming a linkage containing oxygen or oxygen and carbon in the main chain, not provided for in groups C09D 159/00 - C09D 171/00; Coating compositions based on derivatives of such polymers**

### Special rules of classification

**C-Sets classification:**

In this group, C-Sets (#C9Dc, #C9De, #C9Df, #C9Dc(Si) and #C9Df(Si)) are used for classification. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of classification in C09D 101/00.

**C-Sets searches:**

C-Sets search queries may be made according to C-Sets classification rules described in C09D 101/00 and related subclasses. In addition, #C8Lz, #C9Dz and #C9Jz Search Rules may be followed to search for polymers with additives in documents classified prior to April 2012.

# C09D 175/00

## Coating compositions based on polyureas or polyurethanes; Coating compositions based on derivatives of such polymers

## Definition statement

*This place covers:*

Coating compositions of polymers of C08G 18/00 or C08G 71/00.

## References

### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Coating compositions characterized by their physical nature or their effects produced | C09D 5/00 |
| Processes for applying liquid materials to surfaces | B05D 1/00 |
| Shaping or joining plastics | B29C |
| Mould release agents | B29C 33/60 |
| Layered products comprising polyurethanes | B32B 27/40 |
| Working up of polyurethanes to porous or cellular articles | C08J 9/00 |
| Use of inorganic or non-macromolecular organic substances as compounding ingredients | C08K |
| Polymer compositions wherein the major component is a polymer of C08G 18/00 or C08G 71/00 | C08L 75/00 |
| Adhesives processes | C09J 5/00 |
| Adhesive compositions of polyurethanes or polyureas | C09J 175/00 |

## Special rules of classification

**C-Sets classification:**

In this group, C-Sets (#C9Dc, #C9De, #C9Df, #C9Dc(Si) and #C9Df(Si)) are used for classification. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of classification in C09D 101/00.

**C-Sets searches:**

C-Sets search queries may be made according to C-Sets classification rules described in C09D 101/00 and related subclasses. In addition, #C8Lz, #C9Dz and #C9Jz Search Rules may be followed to search for polymers with additives in documents classified prior to April 2012.

## Synonyms and Keywords

*In patent documents, the following abbreviations are often used:*

| | |
|---|---|
| CPP | Copolymer polyol |
| DABCO | 1,4-Diazabicyclo(2.2.2)octane |
| DMPA | Dimethylol propionic acid |
| EDA | Ethylene diamine |
| EO | Ethylene oxide |
| H12MDI | Dicyclohexylmethane diisocyanate |

| | |
|---|---|
| HDI | Hexane diisocyanate |
| IEM | Isocyanato ethyl methacrylate |
| IPDI | Isophorone diisocyanate |
| Jeffamine | Amine capped polyether |
| MDI | 4,4-Methylenebis(phenyl)isocyanate |
| PEG | Polyethyleneglycol |
| PIR | Polyisocyanurate |
| PMDI | Polymethylene poly(phenylisocyanate) |
| PO | Propylene oxide |
| PPG | Polypropylene glycol |
| PTMO | Polytetramethylene oxide |
| TDI | Toluene diisocyanate |
| TMP | Trimethylol propane |
| TMXDI | Trimethylol propane |
| TPU | Tetramethylxylylene diisocyanate |
| XDI | Xylylene diisocyanate |

## C09D 177/00

### Coating compositions based on polyamides obtained by reactions forming a carboxylic amide link in the main chain (based on polyhydrazides C09D 179/06; based on polyamide-imides C09D 179/08); Coating compositions based on derivatives of such polymers

#### Definition statement

*This place covers:*

Coatings of compositions based on polyamides derived from

- omega-amino carboxylic acids or from lactams corresponding to C08G 69/02, e.g. nylon 6,
- alpha-amino carboxylic corresponding to C08G 69/10,
- polyamines and polycarboxylic acids corresponding to C08G 69/26, e.g. nylon 66,
- aromatically bound amino and carboxyl groups of amino-carboxylic acids or of polyamines and polycarboxylic acids corresponding to C08G 69/32,
- coatings of compositions of polyester-amides corresponding to C08G 69/44.

#### References

##### *Limiting references*

*This place does not cover:*

| | |
|---|---|
| Coatings of polyhydrazides | C09D 179/06 |
| Coatings of polyamideimides or polyamide acids | C09D 179/08 |

### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Hollow fibres membranes | B01D 69/08 |
| Treatment of rubber | C08C |
| Processes of polymerisation | C08F 2/00 |
| Post-polymerisation treatments | C08F 6/00 |
| Processes of treating or compounding macromolecular substances | C08J 3/00 |
| Processes of crosslinking | C08J 3/24 |
| Manufacture of articles or shaped materials containing macromolecular substances, e.g. films | C08J 5/00, C08J 5/18 |
| Coating of shaped articles made of macromolecular substances | C08J 7/00 |
| Working-up of macromolecular substances to porous or cellular materials | C08J 9/00 |
| Compounding ingredients | C08K |
| Tubes | F16L |
| Optical articles, optical parts, e.g. contact lenses | G02B 1/00 |
| Photosensitive films | G03F 3/00 |
| Printed circuits | H05K |

## Special rules of classification

**C-Sets classification:**

In this group, C-Sets (#C9Dc, #C9De, #C9Df, #C9Dc(Si) and #C9Df(Si)) are used for classification. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of classification in C09D 101/00.

**C-Sets searches:**

C-Sets search queries may be made according to C-Sets classification rules described in C09D 101/00 and related subclasses. In addition, #C8Lz, #C9Dz and #C9Jz Search Rules may be followed to search for polymers with additives in documents classified prior to April 2012.

# C09D 179/00

## Coating compositions based on macromolecular compounds obtained by reactions forming in the main chain of the macromolecule a linkage containing nitrogen, with or without oxygen, or carbon only, not provided for in groups C09D 161/00 - C09D 177/00

## Definition statement

*This place covers:*

Coating compositions of:

- polyamines or polyethyleneimines
- polycondensates having nitrogen-containing heterocyclic rings in the main chain, for e.g. polyhydrazides, polyhydrazides, polytriazoles, polyamino-triazoles, polybenzimidazoles or polyoxadiazoles
- polyimides, polyester-imides, polyamide-imides, polyamide acids, (unsaturated) polyimide precursors.

## References

### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Hollow fibres membranes | B01D 69/08 |
| Treatment of rubber | C08C |
| Processes of polymerisation | C08F 2/00 |
| Post-polymerisation treatments | C08F 6/00 |
| Processes of treating or compounding macromolecular substances | C08J 3/00 |
| Processes of crosslinking | C08J 3/24 |
| Manufacture of articles or shaped materials containing macromolecular substances, e.g. films | C08J 5/00, C08J 5/18 |

## Special rules of classification

**C-Sets classification:**

In this group, C-Sets (#C9Dc, #C9De, #C9Df, #C9Dc(Si) and #C9Df(Si)) are used for classification. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of classification in C09D 101/00.

**C-Sets searches:**

C-Sets search queries may be made according to C-Sets classification rules described in C09D 101/00 and related subclasses. In addition, #C8Lz, #C9Dz and #C9Jz Search Rules may be followed to search for polymers with additives in documents classified prior to April 2012.

# C09D 181/00

## Coating compositions based on macromolecular compounds obtained by reactions forming in the main chain of the macromolecule a linkage containing sulfur, with or without nitrogen, oxygen, or carbon only; Coating compositions based on polysulfones; Coating compositions based on derivatives of such polymers

## Special rules of classification

Same rules as for C08L 81/00-C08L 81/10.

**C-Sets classification:**

In this group, C-Sets (#C9Dc, #C9De, #C9Df, #C9Dc(Si) and #C9Df(Si)) are used for classification. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of classification in C09D 101/00.

**C-Sets searches:**

C-Sets search queries may be made according to C-Sets classification rules described in C09D 101/00 and related subclasses. In addition, #C8Lz, #C9Dz and #C9Jz Search Rules may be followed to search for polymers with additives in documents classified prior to April 2012.

# C09D 183/00

## Coating compositions based on macromolecular compounds obtained by reactions forming in the main chain of the macromolecule a linkage containing silicon, with or without sulfur, nitrogen, oxygen, or carbon only; Coating compositions based on derivatives of such polymers

### Definition statement

*This place covers:*

Coating compositions comprising macromolecular compounds obtained by reactions forming in the main chain of the macromolecule a linkage containing silicon with or without sulfur, nitrogen, oxygen or carbon only (Si-based macromolecular compounds in accordance with C08G 77/00 or "Si-based polymers" hereunder), e.g.

- polysilicates (corresponding to group C08G 77/02 ),
- polysiloxanes (corresponding to group C08G 77/04 ),
- block- or graft-copolymers containing polysiloxane sequences (corresponding to group C08G 77/42) or
- polymers in which at least two but not all the silicon atoms are connected by linkages other than oxygen atoms (corresponding to group C08G 77/48);

Coating compositions of derivatives of such polymers.

Coating compositions made form mixtures of different reactive silanes (sol-gel compositions) are classified in the respective subclass of C09D 183/00. It is assumed that in such mixtures there has always been formed a siloxane polymer via hydrolysis/condensation.

### Relationships with other classification places

The groups for coating compositions are structured in analogy to the adhesive compositions C09J 183/00. All notes in C09J 183/00 apply for C09D 183/00.

### Special rules of classification

The following symbols are given if applicable:

C08G 77/70 for every document which uses the MDTQ nomenclature in the claims or the examples;

C08G 77/80 for polysiloxanes having aromatic substituents such as phenyl side groups.

**C-Sets classification:**

In this group, multiple C-Sets, specifically C-Sets (#C9Dc, #C9Df, #C9Dc(Si), #C9Dc(Si)2, #C9Df(Si) and #C9Df(Si)2) are used for classification. The detailed information about the C-Sets construction and the associated syntax rules are found in the "Special rules of classification" of following places:

- See C-Sets #C9Dc, #C9Df, #C9Dc(Si) and #C9Df(Si) in C09D 101/00
- See C-sets #C9Dc(Si)2 and #C9Df(Si) 2 present in this group below.

**C-Sets statement : #C9Dc(Si)2, #C9Df(Si)2**

#C9Dc(Si)2, and #C9Df(Si)2 are a special use of #C9Dc and #C9Df, are applied for a composition comprising two or more Si-based polymers in accordance with C08G 77/00.

- In groups C09D 183/02-C09D 183/16, the feature relating to a coating composition comprising one Si-based polymer in majority with one Si-based polymer in minority optionally with non Si-based polymer is classified in the form of C-Sets.
- In #C9Dc(Si)2, the base symbol, representing the polymer in majority, is taken from the groups C09D 183/02-C09D 183/16, whereas the subsequent symbol(s) representing the Si-based

macromolecular compound(s) in minority is (are) taken from the group C08L 83/00 and optionally from the groups C08L 1/00 - C08L 101/16 for any other polymer .

- In #C9Df(Si)2, the base symbol, representing the polymer in majority, is taken from the groups C09D 183/02-C09D 183/16, whereas the subsequent symbol(s) representing the Si-based macromolecular compound(s) in minority is (are) taken from the group C08L 83/00 and optionally from the groups C08L 1/00 - C08L 101/16 for any other polymer and further subsequent symbols representing compound(s) used as an additive(s), is (are) taken from the groups C08K 3/00 - C08K 13/08.
- In addition to C-Sets, one or more additional symbols are allocated, which are selected from the range C08G 77/02 - C08G 77/62 corresponding to each of the Si-based macromolecular compound components detailed in the C-Set.
- A single symbol is given according to the macromolecular constituent present in the highest proportion.

**C-Sets syntax rules:**

- C-Sets of #C9Dc(Si)2 shall contain at least two symbols.
- C-Sets of #C9Df(Si)2 shall contain at least three symbols.
- While duplicate symbols are allowed in these C-Sets, only one symbol selected from the range C09D 183/02-C09D 183/16 is permitted per C-Set.
- The order of C09D and C08L symbols in C-Sets of #C9Dc( Si)2 is relevant as it reflects the relative amounts of the polymers.
- In #C9Df(Si)2, the C08K symbols for the additives always appear after the symbols for the polymers (C09D or C08L). The order of C08K symbols of additives is not relevant if there is more than one additive in the composition.

**C-Sets examples:**

- #C9Dc

Example 1: A coating composition comprising, in descending amounts by weight, an epoxy-substituted polysiloxane in accordance with C08G 77/14 and a polyester in accordance with C08G 63/02 is classified as (C09D 183/06, C08L 67/02) and in C08G 77/14 (ADD).

Example 2: A coating composition comprising, in descending amounts by weight, a polyester in accordance with C08G 63/02 and an alkoxy-substituted polysiloxane in accordance with C08G 77/18 is classified as (C09D 167/02, C08L 83/04) and in C08G 77/18 (ADD).

- #C9Dc(Si)

Example 3: A coating composition comprising, in descending amounts by weight, a polyester in accordance with C08G 63/02, an amine-substituted polysiloxane in accordance with C08G 77/26 and an epoxy-substituted polysiloxane in accordance with C08G 77/14 is classified as (C09D 167/02, C08L 83/08, C08L 83/00) and in C08G 77/14 (ADD) and C08G 77/26 (ADD).

- #C9Dc(Si)2

Example 4: A coating composition comprising, in descending amounts by weight, a vinyl-substituted polysiloxane in accordance with C08G 77/20 and a polysiloxane bearing Si-H groups in accordance with C08G 77/12 is classified as (C09D 183/04, C08L 83/00) and in C08G 77/12 (ADD) and C08G 77/20 (ADD).

Example 5: A coating composition comprising, in descending amounts by weight, a vinyl-substituted polysiloxane in accordance with C08G 77/20, an epoxy-substituted polysiloxane in accordance with C08G 77/14 and a polysiloxane bearing Si-H groups in accordance with C08G 77/12 is classified as (C09D 183/04, C08L 83/00, C08L 83/00) and in C08G 77/12, C08G 77/14 and C08G 77/20.

Example 6: A coating composition comprising, in descending amounts by weight, a silanol-substituted polysiloxane in accordance with C08G 77/16, a polysiloxane bearing Si-H groups in accordance with C08G 77/12 and a polyester in accordance with C08G 63/02 is classified as (C09D 183/04, C08L 83/00, C08L 67/02) and in C08G 77/12 (ADD) and C08G 77/16 (ADD).

Example 7: A coating composition comprising, in descending amounts by weight, a halogen group-bearing polysiloxane in accordance with C08G 77/24, a polyester in accordance with C08G 63/02 and an epoxy-substituted polysiloxane in accordance with C08G 77/14 is classified as (C09D 183/08, C08L 67/02, C08L 83/00) and in C08G 77/14 (ADD) and C08G 77/24 (ADD).

- #C9Df

Example 8: A coating composition comprising, in descending amounts by weight, an epoxy-substituted polysiloxane in accordance with C08G 77/14 and a polyester in accordance with C08G 63/02 and a resorcinol phosphate is classified as (C09D 183/06, C08L 67/02, C08K 5/523) and in C08G 77/14 (ADD).

Example 9: A coating composition comprising, in descending amounts by weight, a polyester in accordance with C08G 63/02 and an alkoxy-substituted polysiloxane in accordance with C08G 77/18 and silica is classified as (C09D 167/02, C08L 83/04, C08K 3/36) and in C08G 77/18 (ADD).

- #C9Df(Si)

Example 10: A coating composition comprising, in descending amounts by weight, a polyester in accordance with C08G 63/02, an amine-substituted polysiloxane in accordance with C08G 77/26 and an epoxy-substituted polysiloxane in accordance with C08G 77/14 and carbon black is classified as (C09D 167/02, C08L 83/08, C08L 83/00, C08K 3/04) and in C08G 77/14 (ADD) and C08G 77/26 (ADD).

- #C9Df(Si)2

Example 11: A coating composition comprising, in descending amounts by weight, a vinyl-substituted polysiloxane in accordance with C08G 77/20 and a polysiloxane bearing Si-H groups in accordance with C08G 77/12 and silica is classified as (C09D 183/04, C08L 83/00, C08K 3/36) and in C08G 77/12 (ADD) and C08G 77/20 (ADD).

Example 12: A coating composition comprising, in descending amounts by weight, a vinyl-substituted polysiloxane in accordance with C08G 77/20, an epoxy-substituted polysiloxane in accordance with C08G 77/14 and a polysiloxane bearing Si-H groups in accordance with C08G 77/12 and silica is classified as (C09D 183/04, C08L 83/00, C08L 83/00, C08K 3/36) and in C08G 77/12 (ADD), C08G 77/14 (ADD) and C08G 77/20 (ADD).

Example 13: A coating composition comprising, in descending amounts by weight, a silanol-substituted polysiloxane in accordance with C08G 77/16, a polysiloxane bearing Si-H groups in accordance with C08G 77/12 and a polyester in accordance with C08G 63/02 and a phenol is classified as (C09D 183/04, C08L 83/00, C08L 67/02, C08K 5/13) and in C08G 77/12 (ADD) and C08G 77/16 (ADD).

Example14: A coating composition comprising, in descending amounts by weight, a halogen group-bearing polysiloxane in accordance with C08G 77/24, a polyester in accordance with C08G 63/02 and an epoxy-substituted polysiloxane in accordance with C08G 77/14 and a phenol is classified as (C09D 183/08, C08L 67/02, C08L 83/00, C08K 5/13) and in C08G 77/14 (ADD) and C08G 77/24 (ADD).

**C-Sets searches:**

Since multiple C-Sets classifications are applicable to this group C-Sets search queries may be made according to C-Sets classification rules described in C09D 101/00 and this group above, as well as other related subclasses, e.g. C08K and C08L.

In addition, #C8Lz, #C9Dz, and #C9Jz Search Rules may be followed to search for polymers in documents classified prior to April 2012.

## C09D 183/04

### Polysiloxanes

### References

#### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Application of siloxanes as pressure sensitive coatings (PSAs) | C09J 7/38 |
| Release coating composition on which the PSA is applied | C09J 7/40, C09D 183/04 |

### Special rules of classification

From 01.09.2010 onwards, a coating composition containing two or more siloxanes is (searched and) classified in (C09D 183/04, C08L 83/00) and then given additional Indexing Codes for the respective siloxanes, e.g. C08G 77/12 for Si-H siloxane and C08G 77/20 for vinyl-siloxane.

## C09D 183/10

### Block or graft copolymers containing polysiloxane sequences (obtained by polymerising a compound having a carbon-to-carbon double bond on to a polysiloxane C09D 151/08, C09D 153/00)

### References

#### *Limiting references*

*This place does not cover:*

| | |
|---|---|
| Coating compositions obtained by polymerising a compound having a carbon-to-carbon double bond on to a polysiloxane | C09D 151/08, C09D 153/00 |

### Special rules of classification

Attention is drawn to the CPC Definitions of C08G 77/42.

## C09D 183/12

### containing polyether sequences

### Special rules of classification

Attention is drawn to the CPC Definitions of the respective C08G 77/00 groups.

## C09D 183/14

### in which at least two but not all the silicon atoms are connected by linkages other than oxygen atoms (C09D 183/10 takes precedence)

### Special rules of classification

Attention is drawn to the CPC Definitions of the respective C08G 77/00 groups.

C09D 183/10 takes precedence over this group.

# C09D 185/00

## Coating compositions based on macromolecular compounds obtained by reactions forming in the main chain of the macromolecule a linkage containing atoms other than silicon, sulfur, nitrogen, oxygen, and carbon; Coating compositions based on derivatives of such polymers

### Special rules of classification

- Same rules apply as for C08L 85/00 - C08L 85/04.

**C-Sets classification:**

In this group, C-Sets (#C9Dc, #C9De, #C9Df, #C9Dc(Si) and #C9Df(Si))) are used for classification. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of classification in C09D 101/00.

**C-Sets searches:**

C-Sets search queries may be made according to C-Sets classification rules described in C09D 101/00 and related subclasses. In addition, #C8Lz, #C9Dz and #C9Jz Search Rules may be followed to search for polymers with additives in documents classified prior to April 2012.

# C09D 187/00

## Coating compositions based on unspecified macromolecular compounds, obtained otherwise than by polymerisation reactions only involving unsaturated carbon-to-carbon bonds

### Definition statement

*This place covers:*

Coating compositions of unspecific macromolecular compounds, obtained by step polymerisation reactions and addition polymerization reactions.

### Special rules of classification

**C-Sets classification:**

In this group, C-Sets (#C9Dc, #C9De, #C9Df, #C9Dc(Si) and #C9Df(Si)) are used for classification. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of classification in C09D 101/00.

**C-Sets searches:**

C-Sets search queries may be made according to C-Sets classification rules described in C09D 101/00 and related subclasses. In addition, #C8Lz, #C9Dz and #C9Jz Search Rules may be followed to search for polymers with additives in documents classified prior to April 2012.

# C09D 187/005

## {Block or graft polymers not provided for in groups C09D 101/00 - C09D 185/04}

### Definition statement

*This place covers:*

Coating compositions of block or graft polymers obtained by step polymerisation reactions and addition polymerization reactions.

## References

### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Coating compositions based on graft polymers in which the grafted component obtained by reactions only involving carbon-to-carbon unsaturated bonds is grafted on to macromolecular compounds obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds | C09D 151/08 |
| Coating compositions based on block copolymers containing at least one sequence of a polymer obtained by reactions only involving carbon-to-carbon unsaturated bonds; Coating compositions based on derivatives of such polymers | C09D 153/00 - C09D 153/025 |

## Special rules of classification

**C-Sets classification:**

In this group, C-Sets (#C9Dc, #C9De, #C9Df, #C9Dc(Si) and #C9Df(Si)) are used for classification. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of classification in C09D 101/00.

**C-Sets searches:**

C-Sets search queries may be made according to C-Sets classification rules described in C09D 101/00 and related subclasses. In addition, #C8Lz, #C9Dz and #C9Jz Search Rules may be followed to search for polymers with additives in documents classified prior to April 2012.

# C09D 189/00

## Coating compositions based on proteins; Coating compositions based on derivatives thereof (foodstuff preparations A23J 3/00)

## Definition statement

*This place covers:*

Coating compositions of proteins or derivatives thereof, i.e. of complex organic macromolecules that containing carbon, hydrogen, oxygen, nitrogen and usually sulfur and are composed of one or more chains or amino acids parts and that correspond to the following groups for the macromolecular products derived from proteins as such: C08H 1/00-C08H 1/06

## References

### *Application-oriented references*

*Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:*

| | |
|---|---|
| Foodstuff preparations | A23J 3/00 |

### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Composition comprising proteins or protein derivatives | C08L 89/00 - C08L 89/06 |
| Adhesive composition comprising proteins or protein derivatives | C09J 189/00 - C09J 189/06 |

## Special rules of classification

Reference A23J 3/00 is non-limiting in the subclass/main group/subgroup C08L 89/00. CPC will be updated/corrected once this inconsistency is resolved in IPC.

Last place priority rule:

Within each subgroup of this group, in the absence of an indication to the contrary, classification is made in the last appropriate place.

Classification guidance:

- The subject-matter disclosed in both the claims and the examples of a patent document is to be classified.
- Proteins or derivatives thereof in solution, or together with other macromolecular compounds, or together with an inorganic or non-macromolecular organic additive are considered as a composition and are thus classified according to the rules of C08L. They are classified according to the relevant proportions by weight of only the macromolecular constituents, in particular according to the macromolecular constituent present in the highest proportion.
- If all the constituents are present in equal proportions, the composition is classified according to each of these constituents.
- Coating compositions containing a protein or derivatives thereof and an inorganic or non-macromolecular organic additive as compounding agent are not classified in C08K , but in the corresponding C09D subclass together with the corresponding Code(s) in C08K.

**C-Sets classification:**

In this group, C-Sets (#C9Dc, #C9De, #C9Df, #C9Dc(Si) and #C9Df(Si)) are used for classification. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of C09D 101/00.

**C-Sets searches:**

C-Sets search queries may be made according to C-Sets classification rules described in C09D 101/00 and related subclasses. In addition, #C8Lz, #C9Dz and #C9Jz Search Rules may be followed to search for polymers with additives in documents classified prior to April 2012.

# C09D 189/04

### Products derived from waste materials, e.g. horn, hoof or hair

## Definition statement

*This place covers:*

Products derived from waste animal materials.

# C09D 191/00

### Coating compositions based on oils, fats or waxes; Coating compositions based on derivatives thereof (polishing compositions, ski waxes C09G)

## Definition statement

*This place covers:*

Coating compositions of oils, fats and waxes, e.g. factice, linoxyn or (mineral) waxes.

## Relationships with other classification places

**Multiple classification**

The use of oils, fats and waxes in cosmetics and other toilet preparations is further classified in one of A61Q together with A61K 8/92.

Galenical compositions comprising natural resins are classified in A61K 9/00.

The use of oils, fats and waxes as carriers in medicinal preparations is classified in A61K 47/44.

The use of oils, fats and waxes in lubricants is classified in C10M.

## References

### *Application-oriented references*

*Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:*

| | |
|---|---|
| Polishing compositions, ski waxes | C09G |
| Soaps, detergent compositions | C11D |

### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Vulcanised oils, e.g. factice | C08H 3/00 |
| Compositions of oils, fats and waxes in minority | C08L 91/00 - C08L 91/08 |
| Adhesive composition comprising oils, fats and waxes | C09J 191/00 - C09J 191/08 |

## Special rules of classification

Reference C09G is non-limiting in the main group C09D 191/00. CPC will be updated/corrected once this inconsistency is resolved in IPC.

Last place priority rule:

Within each subgroup of this group, in the absence of an indication to the contrary, classification is made in the last appropriate place.

Classification guidance:

- The subject-matter disclosed in both the claims and the examples of a patent document is to be classified.
- Oils, fats and waxes in solution, or together with other macromolecular compounds, or together with an inorganic or non-macromolecular organic additive are considered as a composition and are thus classified according to the rules of C08L. They are classified according to the relevant proportions by weight of only the macromolecular constituents, in particular according to the macromolecular constituent present in the highest proportion.
- If all the constituents are present in equal proportions, the composition is classified according to each of these constituents

**C-Sets classification:**

In this group, C-Sets (#C9Dc, #C9De, #C9Df, #C9Dc(Si) and #C9Df(Si)) are used for classification. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of classification in C09D 101/00.

**C-Sets searches:**

C-Sets search queries may be made according to C-Sets classification rules described in C09D 101/00 and related subclasses. In addition, #C8Lz, #C9Dz and #C9Jz Search Rules may be followed to search for polymers with additives in documents classified prior to April 2012.

# C09D 193/00

## Coating compositions based on natural resins; Coating compositions based on derivatives thereof (based on polysaccharides C09D 101/00 - C09D 105/00; based on natural rubber C09D 107/00; polishing compositions C09G)

### Definition statement

*This place covers:*

Compositions of natural resins and their derivatives corresponding to the following group: C09F 1/00

Coatings compositions of resins obtained directly from the plant in its natural state, Plant exudate, e.g. colophony.

Coating compositions obtained by extrusion of plant material, e.g. through an extruder, i.e. submitted to high shear and high temperatures are not classified in this group.

### Relationships with other classification places

Grafted natural resins obtained by reaction of an unsaturated monomer onto a natural resin are classified in C08F 253/00.

Galenical compositions comprising natural resins are classified in A61K 9/00.

### References

#### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Composition comprising natural resins | C08L 93/00 - C08L 93/04 |
| Purification or chemical modification of natural resins | C09F 1/00 |
| Polishing compositions | C09G |
| Adhesive composition comprising natural resins | C09J 193/00 - C09J 193/04 |

### Special rules of classification

Reference C09G is non-limiting in the main group C09D 193/00. CPC will be updated/corrected once this inconsistency is resolved in IPC.

Last place priority rule:

Within each subgroup of this group, in the absence of an indication to the contrary, classification is made in the last appropriate.

Classification Guidance:

The subject matter disclosed in both the claims and the examples of a patent document is to be classified.

**C-Sets classification:**

In this group, C-Sets (#C9Dc, #C9De, #C9Df, #C9Dc(Si) and #C9Df(Si)) are used for classification. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of classification in C09D 101/00.

**C-Sets searches:**

C-Sets search queries may be made according to C-Sets classification rules described in C09D 101/00 and related subclasses. In addition, #C8Lz, #C9Dz and #C9Jz Search Rules may be followed to search for polymers with additives in documents classified prior to April 2012.

# C09D 195/00

## Coating compositions based on bituminous materials, e.g. asphalt, tar, pitch

### Definition statement

*This place covers:*

1. Coating compositions of bitumen or asphalt used for coating applications other than coating aggregate.

2. Aqueous compositions of bitumen or asphalt, e.g. emulsions, used for coating applications other than coating aggregate.

### Relationships with other classification places

Relationship with other subclasses of C08 and C09

Attention is drawn to the general rules of classification which are explained after the C08L and the C09D titles.

Relationship with the main group C08L 95/00

Since the main group C09D 195/00 is seen as a "related field" of C08L 95/00, explicit reference is made to all references, definitions, terms and rules explained in said main group C08L 95/00

### References

#### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Coating or adhering of aggregate | C08L 95/00 - C08L 95/005 |
| Adhering applications | C09J 195/00 - C09J 195/005 |
| Sealing materials | C09K 3/00, C09K 3/12, C09K 3/18 |

### Special rules of classification

Classification guidance:

- The subgroup C09D 195/00 or C09D 195/005 should be used only if the claims of the application explicitly encompass a bituminous coating as such.
- In addition a C08L 95/00 symbol in combination with the relevant orthogonal indexing code(s) (C08L 2555/00 - C08L 2555/86) characterising essential features should also be given if the coating composition is mainly characterised by the bituminous composition, either by its constituents and/or by its parameters.

Example 1: A coating composition for coating a metal substrate comprising bitumen is classified in C09D 195/00

Example 2: A coating composition for coating aggregate comprising bitumen is classified in C08L 95/00

Example 3: A coating composition comprising bitumen for adhering an element to a substrate is classified in C09J 195/00

Example 4: A coating composition comprising a mixture of bitumen and bees wax is classified in C09D 195/00 and C08L 95/00 and C08L 2555/64

**C-Sets classification:**

In this group, C-Sets (#C9Dc, #C9De, #C9Df, #C9Dc(Si) and #C9Df(Si)) are used for classification. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of classification in C09D 101/00.

**C-Sets searches:**

C-Sets search queries may be made according to C-Sets classification rules described in C09D 101/00 and related subclasses. In addition, #C8Lz, #C9Dz and #C9Jz Search Rules may be followed to search for polymers with additives in documents classified prior to April 2012.

## Glossary of terms

*In this place, the following terms or expressions are used with the meaning indicated:*

In this group, several terms (or expressions) are used having the meaning as indicated in the group C08L 95/00

## Synonyms and Keywords

In this group, several synonyms and keywords are used as indicated in the group C08L 95/00

# C09D 197/00

## Coating compositions based on lignin-containing materials (based on polysaccharides C09D 101/00 - C09D 105/00)

## Definition statement

*This place covers:*

Coating compositions of lignin-containing materials corresponding to the following groups:

C08H 6/00 and C08H 8/00, e.g. cork, lignocellulosic materials like wood

## References

### *Limiting references*

*This place does not cover:*

| | |
|---|---|
| Coating compositions based on polysaccharides | C09D 101/00 - C09D 105/00 |

### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Coating composition of natural macromolecule compounds or of derivatives not provided for in groups C08L 89/00 - C08L 97/00, e.g. flours | C09D 199/00 |
| Macromolecular compounds derived from lignin | C08H 6/00 |
| Macromolecular compounds derived from lignocellulosic materials | C08H 8/00 |
| Composition comprising lignin-containing materials | C08L 97/00 - C08L 97/02 |
| Composition of natural macromolecular compounds or of derivatives thereof not provided for in groups C08L 89/00 - C08L 97/00, e.g. flours | C08L 99/00 |
| Adhesive composition comprising lignin-containing materials | C09J 197/00 - C09J 197/02 |

## Special rules of classification

Last place priority rule:

Within each subgroup of this group, in the absence of an indication to the contrary, classification is made in the last appropriate place.

Classification guidance:

- The subject-matter disclosed in both the claims and the examples of a patent document is to be classified.
- Lignin-containing materials in solution, or together with other macromolecular compounds, or together with an inorganic or non-macromolecular organic additive are considered as a composition and are thus classified according to the rules of C09D. They are classified according to the relevant proportions by weight of only the macromolecular constituents, in particular according to the macromolecular constituent present in the highest proportion.
- If all the constituents are present in equal proportions, the composition is classified according to each of these constituents
- Coating compositions containing a lignin-containing material and an inorganic or non-macromolecular organic additive as compounding agent are not classified in C08K but in the corresponding C09D subclass together with the corresponding symbol(s) in C08K.

Example: A coating composition consisting of lignocellulose and glass fibres (filler) is classified in C09D 197/02 and C08K 7/14.

**C-Sets classification:**

In this group, C-Sets (#C9Dc, #C9De, #C9Df, #C9Dc(Si) and #C9Df(Si)) are used for classification. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of classification in C09D 101/00.

**C-Sets searches:**

C-Sets search queries may be made according to C-Sets classification rules described in C09D 101/00 and related subclasses. In addition, #C8Lz, #C9Dz and #C9Jz Search Rules may be followed to search for polymers with additives in documents classified prior to April 2012.

# C09D 199/00

## Coating compositions based on natural macromolecular compounds or on derivatives thereof, not provided for in groups C09D 101/00 - C09D 107/00 or C09D 189/00 - C09D 197/00

### Definition statement

*This place covers:*

Coating compositions of natural macromolecular compounds or derivatives thereof not provided for in groups C08L 89/00 - C08L 97/00 corresponding to the following groups: C08H 99/00

### References

#### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Coating composition of starch or derivatives thereof | C09D 103/00 |
| Coating composition of lignin-containing materials, e.g. lignin, cork, lignocellulose or wood | C09D 197/00 |
| Natural macromolecular compounds or derivatives thereof | C08H 99/00 |
| Composition comprising natural macromolecular compounds | C08L 99/00 |
| Adhesive composition comprising natural macromolecular compounds | C09J 199/00 |

### Special rules of classification

Last place priority rule:

Within each subgroup of this group, in the absence of an indication to the contrary, classification is made in the last appropriate place.

Classification guidance:

- The subject-matter disclosed in both the claims and the examples of a patent document is to be classified.
- Natural macromolecular materials in solution, or together with other macromolecular compounds, or together with an inorganic or non-macromolecular organic additive are considered as a composition and are thus classified according to the rules of C08L.
- The compositions are classified according to the relevant proportions by weight of only the macromolecular constituents, in particular according to the macromolecular constituent present in the highest proportion.
- If all the constituents are present in equal proportions, the composition is classified according to each of these constituents.
- Coating compositions containing a natural macromolecular material and an inorganic or non-macromolecular organic additive as compounding agent are not classified in C08K but in the corresponding C09D subclass together with the corresponding symbol(s) in C08K.

**C-Sets classification:**

In this group, C-Sets (#C9Dc, #C9De, #C9Df, #C9Dc(Si) and #C9Df(Si)) are used for classification. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of classification in C09D 101/00.

**C-Sets searches:**

C-Sets search queries may be made according to C-Sets classification rules described in C09D 101/00 and related subclasses. In addition, #C8Lz, #C9Dz and #C9Jz Search Rules may be followed to search for polymers with additives in documents classified prior to April 2012.

# C09D 201/00

## Coating compositions based on unspecified macromolecular compounds

## Definition statement

*This place covers:*

coating compositions based on unspecified polymers not covered by C09D 101/00-C09D 199/00.

## Special rules of classification

**C-Sets classification:**

In this group, C-Sets (#C9Dc, #C9De, #C9Df, #C9Dc(Si) and #C9Df(Si)) are used for classification. The detailed information about the C-Sets construction and the associated syntax rules are found in the Special rules of classification in C09D 101/00.

**C-Sets searches:**

C-Sets search queries may be made according to C-Sets classification rules described in C09D 101/00 and related subclasses. In addition, #C8Lz, #C9Dz and #C9Jz Search Rules may be followed to search for polymers with additives in documents classified prior to April 2012.

# C09D 201/005

## {Dendritic macromolecules}

## Definition statement

*This place covers:*

Coating compositions in which the polymer in majority is unspecified and the polymer in minority is a dendritic polymer.

## References

### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Dendritic polymers | C08G 83/002 |
| Dendrimers | C08G 83/003 |
| Hyperbranched polymers | C08G 83/005 |
| Polymer compositions corresponding to compositions of C08L 101/005 | C08L 101/005 |
| Adhesive compositions corresponding to compositions of C08L 101/005 | C09J 201/005 |

## Special rules of classification

Please see the Rules under C09D 201/00.

## C09D 201/02

### characterised by the presence of specified groups {, e.g. terminal or pendant functional groups}

#### Definition statement

*This place covers:*

coating compositions characterised by the presence of specified groups; e.g. terminal or pendant functional groups

#### Special rules of classification

Please see the Rules under C09D 201/00.

## C09D 201/025

### {containing nitrogen atoms}

#### Definition statement

*This place covers:*

coating compositions in which the unspecified polymer is characterised by the presence of functional groups containing nitrogen, e.g. carbamates.

#### References

##### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Polymer compositions corresponding to compositions of C08L 101/025 | C09D 201/025 |
| Adhesive compositions corresponding to compositions of C08L 101/025 | C09J 201/025 |

#### Special rules of classification

Please see the Rules under C09D 201/00.

## C09D 201/04

### containing halogen atoms

#### Definition statement

*This place covers:*

coating compositions in which the unspecified polymer is characterised by the presence of halogen atoms.

#### Special rules of classification

Please see the Rules under C09D 201/00.

# C09D 201/06

## containing oxygen atoms {(C09D 201/025 takes precedence)}

### Definition statement

*This place covers:*

coating compositions in which the unspecified polymer is characterised by the presence of functional groups containing oxygen, e.g. hydroxyl, carboxyl groups, and the like.

### Special rules of classification

Please see the Rules under C09D 201/00.

# C09D 201/08

## Carboxyl groups

### Definition statement

*This place covers:*

coating compositions in which the unspecified polymer is characterised by the presence of carboxyl groups.

### Special rules of classification

Please see the Rules under C09D 201/00.

# C09D 201/10

## containing hydrolysable silane groups

### Definition statement

*This place covers:*

coating compositions in which the unspecified polymer is characterised by the presence of functional groups containing silicone, e.g. silanes, silanol groups and the like.

### References

#### *Informative references*

*Attention is drawn to the following places, which may be of interest for search:*

| | |
|---|---|
| Coating compositions of polymers classified in C08L 43/04 | C09D 143/04 |
| Polysiloxane coating compositions | C09D 183/00- C09D 183/16 |
| Polymers of compounds having one or more unsaturated aliphatic radicals and containing silicon | C08L 43/04 |
| Polysiloxane compositions | C08L 83/00- C08L 83/16 |
| Polymer compositions in which the unspecified polymer contains hydrolysable silane groups | C08L 101/10 |
| Adhesive compositions in which the unspecified polymer contains hydrolysable silane groups | C09J 201/10 |

## Special rules of classification

Please see the Rules under C09D 201/00.