CPC COOPERATIVE PATENT CLASSIFICATION

C CHEMISTRY; METALLURGY
(NOTES omitted)

CHEMISTRY

C08 ORGANIC MACROMOLECULAR COMPOUNDS; THEIR PREPARATION OR CHEMICAL WORKING-UP; COMPOSITIONS BASED THEREON

C08J WORKING-UP; GENERAL PROCESSES OF COMPOUNDING; AFTER-TREATMENT NOT COVERED BY SUBCLASSES C08B, C08C, C08F, C08G (mechanical aspects B29; layered products, manufacture thereof B32B; treatment of macromolecular material specially adapted to enhance its filling properties in mortars, concrete or artificial stone C04B 16/04, C04B 18/20, C04B 20/00; treatment of textiles D06)

NOTES
1. This subclass covers processes, not covered by subclasses C08B - C08H, for treating polymers.
   In this subclass, in the absence of an indication to the contrary, classification is made in the last appropriate place.
2. When classifying in subclass C08J, the treatment of specific polymers is indicated using indexing codes chosen from C08J 2300/00 or subgroups thereof.
   Example:
   • Preparation of particles of polystyrene by impregnation of the particles with the blowing agent: C08J 9/18 and C08J 2325/06.
3. The use of a polymeric component in minority, e.g. masterbatch, coating, impregnating agent or thin binder is indicated using indexing codes chosen from C08J 2400/00 or subgroups thereof.
   Examples:
   • Use of PMMA as masterbatch in a polystyrene composition: C08J 3/226 and C08J 2325/06 and C08J 2433/10.
   • Bonding of polystyrene by heating: C08J 5/121 and C08J 2325/06.
   • Coating of a polyethylene substrate with a polyurethane coating: C08J 7/0427 and C08J 2323/06 and C08J 2475/04.
   • Use of ABS as an additive for foamed polyacrylamide: C08J 9/0061 and C08J 2333/26 and C08J 2455/02.
4. In the following subgroups, the codes of C08J 2300/00 - C08J 2399/00 are used to specify:
   • C08J 3/226: the polymeric material to which the masterbatch carrier is added.
   • C08J 5/12: the chemical nature of the adhesive
   • C08J 7/0427: the chemical nature of the coating(s).
   • C08J 9/0061: the polymeric component in majority in a multicomponents foamy blend.
   • C08J 9/224, C08J 9/236, C08J 9/36, C08J 9/40 and C08J 9/42: the polymer used for coating, binding, or impregnating the foam. C08J 9/26: the polymer to be leached out.
   • C08J 9/33 and C08J 9/35: the foam fragments included in the (foamable) polymer matrix.
   • in all other subgroups, when the presence of a polymeric component in minority is of relevance.

WARNINGS
1. The following IPC groups are not in the CPC scheme. The subject matter for these IPC groups is classified in the following CPC groups:
   C08J 5/16 covered by C10N 2250/18

CPC - 2020.01
2. In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

3/00 Processes of treating or compounding macromolecular substances

3/005 . [Processes for mixing polymers]
3/02 . Making solutions, dispersions or lattices by other methods than by solution, emulsion or suspension polymerisation techniques
3/03 . . in aqueous media
3/05 . . . from solid polymers
3/07 . . . from polymer solutions
3/075 . . . Macromolecular gels
3/09 . . . in organic liquids
3/091 . . . [characterised by the chemical constitution of the organic liquid]
3/092 . . . . [Hydrocarbons]
3/093 . . . . [Halogenated hydrocarbons]
3/095 . . . . [Oxygen containing compounds]
3/096 . . . . [Nitrogen containing compounds]
3/097 . . . . [Sulfur containing compounds]
3/098 . . . . [Other compounds]
3/11 . . . from solid polymers
3/12 . . Powdering or granulating [(preparation of active ingredients, e.g. medical preparations in form of capsules A61K 9/51; making granules B29B 9/00)]
3/122 . . [Pulverisation by spraying]
3/124 . . [Treatment for improving the free-flowing characteristics (agglomerates, granulates or microbeadlets A61K 9/16; process or devices for granulating material, e.g. non-sticking properties B01J 2/30; auxiliary treatment of particle B29B 9/16)]
3/126 . . [Polymer particles coated by polymer, e.g. core shell structures (process or devices for granulating material, e.g. coating B01J 2/003)]
3/128 . . [Polymer particles coated by inorganic and organic compounds (macromolecules C08J 3/126)]
3/14 . . by precipitation from solutions [(C08J 3/122 takes precedence)]
3/16 . . by coagulating dispersions [(C08J 3/122 takes precedence; treatment of polymer emulsion, e.g. coagulation C08F 6/22)]
3/18 . Plasticising macromolecular compounds (plasticisers C08K)
3/20 . Compounding polymers with additives, e.g. colouring
3/201 . . [Pre-melted polymers]
3/203 . . [Solid polymers with solid and/or liquid additives]
3/205 . . . in the presence of a [continuous] liquid phase
3/2053 . . . . [the additives only being premixed with a liquid phase]
3/2056 . . . . . [the polymer being pre-melted]
3/21 . . the polymer being premixed with a liquid phase
3/212 . . . . . [and solid additives]
3/215 . . . . at least one additive being also premixed with a liquid phase
3/22 . . using masterbatch techniques
3/223 . . . [Packed additives]
3/226 . . . [using a polymer as a carrier]
3/24 . Crosslinking, e.g. vulcanising, of macromolecules (mechanical aspects B29C 35/00; crosslinking agents C08K [ ; crosslinking aspects not classifiable in C08G, C08F, C08K; compounding C08J 3/201])
3/241 . . [Preventing premature crosslinking by physical separation of components, e.g. encapsulation (of other ingredients C08K 9/00)]
3/242 . . [Applying crosslinking or accelerating agent onto compounding ingredients such as fillers, reinforcements]
3/243 . . [Two or more independent types of crosslinking for one or more polymers]
3/244 . . [Stepwise homogeneous crosslinking of one polymer with one crosslinking system, e.g. partial curing]
3/245 . . [Differential crosslinking of one polymer with one crosslinking type, e.g. surface crosslinking]
3/246 . . [Intercrosslinking of at least two polymers]
3/247 . . . [Heating methods]
3/248 . . . [Measuring crosslinking reactions]
3/26 . . . of latex
3/28 . . Treatment by wave energy or particle radiation

5/00 Manufacture of articles or shaped materials containing macromolecular substances (shaping of foodstuffs A23P; manufacture of semi-permeable membranes B01D 67/00 - B01D 71/00; mechanical features, see the relevant classes, e.g. B29)

5/005 . [Reinforced macromolecular compounds with nanosized materials, e.g. nanoparticles, nanofibres, nanotubes, nanowires, nanorods or nanolayered materials (use of ingredients characterised by shape C08K 7/00; nanotechnology for materials and surface science B82Y 30/00)]
5/02 . . Direct processing of dispersions, e.g. latex, to articles
5/04 . . Reinforcing macromolecular compounds with loose or coherent fibrous material (after-treatment of threads during manufacture D01F; finishing of textiles D06M)]
5/041 . . . [with metal fibres]
5/042 . . . [with carbon fibres]
5/043 . . . [with glass fibres]
5/044 . . . [with other inorganic fibres]
5/045 . . . [with vegetable or animal fibrous material]
5/046 . . . [with synthetic macromolecular fibrous material]

NOTE
[Note 2 following the title of subclass C08J may be applied]

5/047 . . . [with mixed fibrous material]
5/048 . . . [Macromolecular compound to be reinforced also in fibrous form]
5/06 . . . using pretreated fibrous materials
5/08 . . . glass fibres
5/10 . . . characterised by the additives used in the polymer mixture
5/12 . Bonding of a preformed macromolecular material to the same or other solid material such as metal, glass, leather, e.g. using adhesives { (mechanical aspects B29C 65/00) }

5/20 . Manufacture of films or sheets { (producing films or sheets B29D 7/01; wrappers or flexible covers, packaging materials of special type or form B65D 65/00 - B65D 65/466; shaping by stretching characterized by the choice of materials B29C 55/005; layered products essentially comprising synthetic resin B32B 27/00 - B32B 27/42) }

5/22 . Films, membranes, or diaphragms { (ion-exchange in general, B011 39/18 - B011 39/22, B011 41/12 - B011 41/16, B011 43/00, B011 45/00, B011 47/12 - B011 49/00; fuel cells with polymeric electrolyte material H01M 8/1018) }

NOTES

1. {Membranes of which at least the ion-exchanging parts are inorganic, i.e. mixtures of non polymeric ion exchange compounds, e.g. inorganic salts, and at least one polymer are classified in C08J 5/22; membranes based on cellulose are classified in C08J 5/2212.}

2. Methods for incorporating reinforcement supports or filling bodies are classified in C08J 5/2206 (the support or filling body has no ion exchange activity).

3. Groups, e.g. SO3F, which do not have ion-exchanging properties, but which may, by simple hydrolysis in an alkaline, neutral or acid medium, be transformed into ion-exchanging groups, e.g. SO3H, are considered as such.

4. Ion-exchanging fibrous fabrics are considered as heterogeneous membranes and are classified in C08J 5/2225; they include composite membranes, mixtures of two or more (ion exchange) polymers.

5. Membranes obtained by homogenous melting or from a solution are considered as homogeneous, even if the membrane contains (after solidification of the melt or the solution) heterogeneous elements, e.g. filling bodies, supports e.g. in the form of fabrics, or the like, i.e. the ion exchange resin forms the membrane.

6. Reactions which change the nature of the ion-exchanging groups, introduction of ion-exchanging groups, after-treatment (membrane has already been formed) are classified in C08J 5/2287.

5/2206 . . . {based on organic and/or inorganic macromolecular compounds}

5/2212 . . . . {Natural macromolecular compounds}

5/2218 . . . . {Synthetic macromolecular compounds}

5/2225 . . . . {containing fluorine}

5/2231 . . . . {based on macromolecular compounds obtained by reactions involving unsaturated carbon-to-carbon bonds}

5/2237 . . . . . {containing fluorine}

5/2243 . . . . . {obtained by introduction of active groups capable of ion-exchange into compounds of the type C08J 5/2231}

5/225 . . . . . . {containing fluorine}

5/2256 . . . . . . {based on macromolecular compounds obtained by reactions other than those involving carbon-to-carbon bonds, e.g. obtained by polycondensation}

5/2262 . . . . . . . {containing fluorine}

5/2268 . . . . . . . {based on macromolecular compounds obtained by reactions involving unsaturated carbon-to-carbon bonds, and by reactions not involving this type of bond}

5/2275 . . . . . {Heterogeneous membranes}

5/2281 . . . . . . {fluorine containing heterogeneous membranes}

5/2287 . . . . . {After-treatment}

5/2293 . . . . . {After-treatment of fluorine-containing membranes}

5/24 . Impregnating materials with prepolymer which can be polymerised in situ, e.g. manufacture of prepregs

7/00 Chemical treatment or coating of shaped articles made of macromolecular substances (coating with metallic material C23C; electrolytic deposition of metals C25)

7/02 . with solvents, e.g. swelling agents

7/04 . Coating

WARNING

Group C08J 7/04 is impacted by reclassification into groups C08J 7/043, C08J 7/044, C08J 7/046, C08J 7/048, C08J 7/05, C08J 7/052, C08J 7/054, and C08J 7/056.

All groups listed in this Warning should be considered in order to perform a complete search.

7/042 . . . {with two or more layers, where at least one layer of a composition contains a polymer binder}

7/0423 . . . {with at least one layer of inorganic material and at least one layer of a composition containing a polymer binder}

7/0427 . . . {with only one layer of a composition containing a polymer binder (with more layers C08J 7/042)}
7/043 . . Improving the adhesiveness of the coatings per se, e.g. forming primers (adhesives in the form of films or foils characterised by the primer layers between the polymer carriers and the adhesives C09J 7/50)

WARNING

Group C08J 7/043 is incomplete pending reclassification of documents from group C08J 7/04.
Groups C08J 7/04 and C08J 7/043 should be considered in order to perform a complete search.

7/044 . . Forming conductive coatings; Forming coatings having anti-static properties

WARNING

Group C08J 7/044 is incomplete pending reclassification of documents from group C08J 7/04.
Groups C08J 7/04 and C08J 7/044 should be considered in order to perform a complete search.

7/046 . . Forming abrasion-resistant coatings; Forming surface-hardening coatings

WARNING

Group C08J 7/046 is incomplete pending reclassification of documents from group C08J 7/04.
Groups C08J 7/04 and C08J 7/046 should be considered in order to perform a complete search.

7/048 . . Forming gas barrier coatings

WARNING

Group C08J 7/048 is incomplete pending reclassification of documents from group C08J 7/04.
Groups C08J 7/04 and C08J 7/048 should be considered in order to perform a complete search.

7/05 . . Forming flame retardant coatings or fire resistant coatings

WARNING

Group C08J 7/05 is incomplete pending reclassification of documents from group C08J 7/04.
Groups C08J 7/04 and C08J 7/05 should be considered in order to perform a complete search.

7/052 . . Forming heat-sealable coatings

WARNING

Group C08J 7/052 is incomplete pending reclassification of documents from group C08J 7/04.
Groups C08J 7/04 and C08J 7/052 should be considered in order to perform a complete search.

7/054 . . Forming anti-misting or drip-proofing coatings

WARNING

Group C08J 7/054 is incomplete pending reclassification of documents from group C08J 7/04.
Groups C08J 7/04 and C08J 7/054 should be considered in order to perform a complete search.

7/056 . . Forming hydrophilic coatings

WARNING

Group C08J 7/056 is incomplete pending reclassification of documents from group C08J 7/04.
Groups C08J 7/04 and C08J 7/056 should be considered in order to perform a complete search.

7/06 . . with compositions not containing macromolecular substances

7/065 . . [Low-molecular-weight organic substances, e.g. absorption of additives in the surface of the article]

7/08 . . [Heat treatment]

7/12 . . Chemical modification

7/13 . . [Treatment by wave energy or particle radiation (C08J 7/18 takes precedence; surface shaping of articles by plasma treatment B29C 59/14, by wave energy or particle radiation B29C 59/16)]

7/16 . . with acids, their salts or anhydrides

7/18 . . using wave energy or particle radiation

9/00 Working-up of macromolecular substances to porous or cellular articles or materials; After-treatment thereof (mechanical aspects B29C 44/00; foamed polymeric products of isocyanates or isothiocyanates characterised by the monomers or catalysts used C08G 18/00)

9/0004 . . [Use of compounding ingredients, the chemical constitution of which is unknown, broadly defined, or irrelevant]

9/0009 . . [Phase change materials]

9/0014 . . [Use of organic additives]

9/0019 . . [halogenated]

9/0023 . . [containing oxygen]

9/0028 . . [containing nitrogen]

9/0033 . . [containing sulfur]

9/0038 . . [containing phosphorus]

9/0042 . . [containing silicon]

9/0047 . . [containing boron]

9/0052 . . [Organo-metallic compounds]

9/0057 . . [containing antimony, arsenic, or bismuth]

9/0061 . . [characterized by the use of several polymeric components]

9/0066 . . [Use of inorganic compounding ingredients]

9/0071 . . [Nanosized fillers, i.e. having at least one dimension below 100 nanometers]

9/0076 . . [Nanofibres]

9/008 . . [Nanoparticles]

9/0085 . . [Use of fibrous compounding ingredients (C08J 9/0076 takes precedence)]
foamed products

After-treatment of expandable particles; Forming

Making expandable particles

Using blowing gases generated by the reacting

Monomers or modifying agents during the

Preparation or modification of macromolecules

Using blowing gases generated by a previously

Added blowing agent

By a chemical blowing agent

[Hydrides or carbides]

Developing carbon dioxide

Developing nitrogen (, the blowing agent being

A compound containing a nitrogen-to-nitrogen bond]

Agents modifying the decomposition temperature

[Azo-compounds]

[Hydrazines; Hydrazides; Semicarbazides;

Semicarbazones; Hydrazones; Derivatives thereof]

[Containing sulfur]

[Azides]

[Nitroso compounds]

[in a heterocyclic ring containing at least one carbon atom]

By a physical blowing agent

[Hydrogen, oxygen, CO₂, nitrogen or noble gases]

[Water, e.g. hydrated salts]

[Mixtures of organic and inorganic blowing agents]

Organic

[Hydrocarbons]

[Compounds containing oxygen but no halogen atom]

[Halogen containing compounds]

[Containing carbon, halogen and hydrogen only]

[Only chlorine as halogen atoms]

[Only fluorine as halogen atoms]

[Containing carbon and halogen atoms only]

[Perfluorinated]

[Mixtures of blowing agents covered by more than one of the groups C08J 9/141 - C08J 9/143]

NOTE

In groups C08J 9/16 - C08J 9/232, the following term is used with the meaning indicated:

“Expandable” includes also expanding, pre-expanded or expanded

Making expandable particles

By impregnating polymer particles with the blowing agent

By suspension polymerisation in the presence of the blowing agent

After-treatment of expandable particles; Forming foamed products

Surface treatment

Forming foamed products

by sintering expandable particles

by binding agents

by surface fusion and bonding of particles to form voids, e.g. sintering (of expandable particles C08J 9/232)

by elimination of a solid phase from a macromolecular composition or article, e.g. leaching out

by elimination of a liquid phase from a macromolecular composition or article, e.g. drying of coagulum

[a discontinuous liquid phase emulsified in a continuous macromolecular phase]

[the liquid phase being a solvent for the monomers but not for the resulting macromolecular composition, i.e. macroporous or macrotetelic polymers]

by mixing gases into liquid compositions or plastisols, e.g. frothing with air

from compositions containing microballoons, e.g. syntactic foams (making microballoons B01J 13/02)

Agglomeration of foam fragments, e.g. waste foam

Chemical features in the manufacture of articles consisting of a foamed macromolecular core and a macromolecular surface layer having a higher density than the core

Composite foams, i.e. continuous macromolecular foams containing discontinuous cellular particles or fragments

After-treatment

[Coating]

Destruction of cell membranes

Impregnation

[with polymerisable compounds]

[with macromolecular compounds]

Recovery or working-up of waste materials (polymisation processes involving purification or recycling of waste polymers or their depolymerisation products C08B, C08C, C08F, C08G, C08H; mechanical treatments B29)

Of solvents, plasticisers or unreacted monomers

Of polymers

Without chemical reactions

Using selective solvents for polymer components (working-up tar by extraction with selective solvents C10C 1/18; working-up pitch, asphalt, bitumen by selective extraction C10C 3/08)

By chemically breaking down the molecular chains of polymers or breaking of crosslinks, e.g. devulcanisation (depolymerisation to the original monomer C07; production of liquid hydrocarbon mixtures from rubber or rubber waste C10G 1/10; depolymerisation of halogenated hydrocarbon polymers C07C 17/367; depolymerisation of polysters, C07C 51/09; C07C 63/26; depolymerisation of polyamides C07D 201/12; depolymerisation of rubber C08C 19/08)]

[by treatment with enzymes]

By dry-heat treatment only (destructive distillation of carbonaceous materials for production of gas, coke, tar or similar matters C10B)

By treatment with steam or water
11/16 . . . by treatment with inorganic material (C08J 11/14 takes precedence)
11/18 . . . by treatment with organic material
11/20 . . . by treatment with hydrocarbons or halogenated hydrocarbons
11/22 . . . by treatment with organic oxygen-containing compounds
11/24 . . . containing hydroxyl groups
11/26 . . . containing carboxylic acid groups, their anhydrides or esters
11/28 . . . by treatment with organic compounds containing nitrogen, sulfur or phosphorus
99/00 Subject matter not provided for in other groups of this subclass

2201/00 Foams characterised by the foaming process
2201/02 . . . characterised by mechanical pre- or post-treatments
2201/022 . . . premixing or pre-blending a part of the components of a foamy composition, e.g. premixing the polyl with the blowing agent, surfactant and catalyst and only adding the isocyanate at the time of foaming
2201/024 . . . Preparation or use of a blowing agent concentrate, i.e. masterbatch in a foamy composition
2201/026 . . . Crosslinking before of after foaming
2201/028 . . . Foaming by preparing of a high internal phase emulsion
2201/03 . . . Extrusion of the foamy blend
2201/032 . . . Impregnation of a formed object with a gas (expandable particles, e.g. polystyrene beads C08J 9/18)
2201/034 . . . Post-expanding of foam beads or sheets
2201/036 . . . Use of an organic, non-polymeric compound to impregnate, bind or coat a foam, e.g. fatty acid ester
2201/038 . . . Use of an inorganic compound to impregnate, bind or coat a foam, e.g. waterglass
2201/04 . . . characterised by the elimination of a liquid or solid component, e.g. precipitation, leaching out, evaporation

NOTE
When the elimination is performed in several steps, only the first step is indicated using codes C08J 2201/042 - C08J 2201/054

2201/042 . . . Elimination of an organic solid phase
2201/0422 . . . containing oxygen atoms, e.g. saccharose
2201/0424 . . . containing halogen, nitrogen, sulphur or phosphorus atoms
2201/044 . . . Elimination of an inorganic solid phase
2201/0442 . . . the inorganic phase being a metal, its oxide or hydroxide
2201/0444 . . . Salts
2201/0446 . . . Elimination of NaCl only
2201/046 . . . Elimination of a polymeric phase
2201/0462 . . . using organic solvents
2201/0464 . . . using water or inorganic fluids
2201/048 . . . Elimination of a frozen liquid phase
2201/0482 . . . the liquid phase being organic
2201/0484 . . . the liquid phase being aqueous
2201/05 . . . Elimination by evaporation or heat degradation of a liquid phase
2201/0502 . . . the liquid phase being organic
2201/0504 . . . the liquid phase being aqueous
2201/052 . . . Inducing phase separation by thermal treatment, e.g. cooling a solution
2201/0522 . . . the liquid phase being organic
2201/0524 . . . the liquid phase being aqueous
2201/054 . . . Precipitating the polymer by adding a non-solvent or a different solvent
2201/0542 . . . from an organic solvent-based polymer composition
2201/0543 . . . the non-solvent being organic
2201/0544 . . . the non-solvent being aqueous
2201/0545 . . . from an aqueous solvent-based polymer composition
2201/0546 . . . the non-solvent being organic
2201/0547 . . . the non-solvent being aqueous

2203/00 Foams characterized by the expanding agent
2203/02 . . . CO₂-releasing, e.g. NaHCO₃ and citric acid
2203/04 . . . N₂ releasing, ex azodicarbonamide or nitroso compound
2203/06 . . . CO₂, N₂ or noble gases
2203/08 . . . Supercritical fluid
2203/10 . . . Water or water-releasing compounds
2203/12 . . . Organic compounds only containing carbon, hydrogen and oxygen atoms, e.g. ketone or alcohol
2203/14 . . . Saturated hydrocarbons, e.g. butane; Unspecified hydrocarbons
2203/142 . . . Halogenated saturated hydrocarbons, e.g. H₂C-CF₃
2203/144 . . . Perhalogenated saturated hydrocarbons, e.g. F₃C-CF₃
2203/146 . . . Saturated hydrocarbons containing oxygen and halogen atoms, e.g. F₃C-O-CH₂-CH₃
2203/16 . . . Unsaturated hydrocarbons
2203/162 . . . Halogenated unsaturated hydrocarbons, e.g. H₂C=CF₂
2203/164 . . . Perhalogenated unsaturated hydrocarbons, e.g. F₃C=CF₂
2203/166 . . . Unsaturated hydrocarbons containing oxygen and halogen atoms, e.g. F₃C-O-CH=CH₂
2203/18 . . . Binary blends of expanding agents
2203/182 . . . of physical blowing agents, e.g. acetone and butane

NOTE
The blowing agents should be specified by using codes C08J 2203/02 - C08J 2203/166

2203/184 . . . of chemical foaming agent and physical blowing agent, e.g. azodicarbonamide and fluorocarbon

NOTE
The expanding agents should be specified by using codes C08J 2203/02 - C08J 2203/166

2203/20 . . . Ternary blends of expanding agents
2203/202 . . . of physical blowing agents

NOTE
The blowing agents should be specified by using codes C08J 2203/02 - C08J 2203/166.
Characterising the main polymer used in a working-up process

**2203/204** Characterised by the use of unspecified polymers

2203/10 Polymers characterised by the presence of specified groups, e.g. terminal or pendant functional groups

2300/14 Water soluble or water swellable polymers, e.g. aqueous gels

2300/16 Biodegradable polymers

2300/20 Polymers characterized by their physical structure

2300/22 Thermoplastic resins

2300/24 Thermosetting resins

2300/26 Elastomers

2300/30 Polymeric waste or recycled polymer

**2205/00** Foams characterised by their properties

2205/02 the finished foam itself being a gel or a gel being temporarily formed when processing the foamable composition

2205/04 characterised by the foam pores

2205/06 Thermoplastic resins

2205/08 Polymers characterized by their physical structure

2205/10 Biodegradable polymers

2205/12 Polymers characterised by the presence of specified functional groups, e.g. terminal or pendant functional groups

2205/14 Water insoluble or water insoluble polymers

2205/16 Water insoluble or water insoluble polymers

**2207/00** Foams characterised by their intended use

2207/02 Adhesive

2207/04 Aerosol, e.g. polyurethane foam spray

2207/06 Electrical wire insulation

2207/10 Medical applications, e.g. biocompatible scaffolds

2207/12 Sanitary use, e.g. diapers, napkins or bandages

Characterizing the main polymer used in a working-up process

**2300/00** Characterised by the use of unspecified polymers

2300/10 Polymers characterised by the presence of specified groups, e.g. terminal or pendant functional groups

2300/12 Polymers characterised by physical features, e.g. anisotropy, viscosity or electrical conductivity

2300/14 Water soluble or water swellable polymers, e.g. aqueous gels

2300/16 Biodegradable polymers

2300/20 Polymers characterized by their physical structure

2300/22 Thermoplastic resins

2300/24 Thermosetting resins

2300/26 Elastomers

2300/30 Polymeric waste or recycled polymer

**2301/00** Characterised by the use of cellulose, modified cellulose or cellulose derivatives

2301/02 Cellulose; Modified cellulose

2301/04 Oxy cellulose; Hydrocellulose

2301/06 Cellulose hydrate

2301/08 Cellulose derivatives

2301/10 Esters of organic acids

2301/12 Cellulose acetate

2301/14 Mixed esters

2301/16 Esters of inorganic acids

2301/18 Cellulose nitrate

2301/20 Esters of both organic acids and inorganic acids

2301/22 Cellulose xanthate

2301/24 Viscose

2301/26 Cellulose ethers

2301/28 Alkyl ethers

2301/30 Aryl ethers; Aralkyl ethers

2301/32 Cellulose ether-esters

**2303/00** Characterised by the use of starch, amylose or amylopectin or of their derivatives or degradation products

2303/02 Starch; Degradation products thereof, e.g. dextrin

2303/04 Starch derivatives

2303/06 Esters

2303/08 Ethers

2303/10 Oxidised starch

2303/12 Amylose; Amylopectin; Degradation products thereof

2303/14 Amylose derivatives; Amylopectin derivatives

2303/16 Esters

2303/18 Ethers

2303/20 Oxidised amylose; Oxidised amylopectin

**2305/00** Characterised by the use of polysaccharides or of their derivatives not provided for in groups C08J 2301/00 or C08J 2303/00

2305/02 Dextrin; Derivatives thereof

2305/04 Alginate acid; Derivatives thereof

2305/06 Pectin; Derivatives thereof

2305/08 Chitin; Chondroitin sulfate; Hyaluronic acid; Derivatives thereof

2305/10 Heparin; Derivatives thereof

2305/12 Agar-agar; Derivatives thereof

2305/14 Hemicellulose; Derivatives thereof

2305/16 Cyclodextrins; Derivatives thereof

**2307/00** Characterised by the use of natural rubber

2307/02 Latex

**2309/00** Characterised by the use of homopolymers or copolymers of conjugated diene hydrocarbons

2309/02 Copolymers with acrylonitrile

2309/04 Latex

2309/06 Copolymers with styrene

2309/08 Latex

2309/10 Latex (C08J 2309/04, C08J 2309/08 take precedence)

**2311/00** Characterised by the use of homopolymers or copolymers of chloroprene
Characterizing the main polymer used in a working-up process

CPC - 2020.01

2311/02 . Latex
2313/00 Characterised by the use of rubbers containing carboxyl groups
2313/02 . Latex
2315/00 Characterised by the use of rubber derivatives (C08J 2311/00, C08J 2313/00 takes precedence)
2315/02 . Rubber derivatives containing halogen
2317/00 Characterised by the use of reclaimed rubber
2319/00 Characterised by the use of rubbers not provided for in groups C08J 2307/00 - C08J 2317/00
2319/02 . Latex
2321/00 Characterised by the use of unspecified rubbers
2321/02 . Latex
2323/00 Characterised by the use of homopolymers or copolymers of unsaturated aliphatic hydrocarbons having only one carbon-to-carbon double bond; Derivatives of such polymers
2323/02 . not modified by chemical after treatment
2323/04 . Homopolymers or copolymers of ethene
2323/06 . Polyethylene
2323/08 . Copolymers of ethene (C08J 2323/16 takes precedence)
2323/10 . Homopolymers or copolymers of propene
2323/12 . Polypropene
2323/14 . Copolymers of propene (C08J 2323/16 takes precedence)
2323/16 . Ethene-propene or ethene-propene-diene copolymers
2323/18 . Homopolymers or copolymers of hydrocarbons having four or more carbon atoms
2323/20 . having four to nine carbon atoms
2323/22 . Copolymers of isobutene; butyl rubber
2323/24 . having ten or more carbon atoms
2323/26 . modified by chemical after-treatment
2323/28 . by reaction with halogens or halogen-containing compounds (C08J 2323/32 takes precedence)
2323/30 . by oxidation
2323/32 . by reaction with phosphorus- or sulfur-containing compounds
2323/34 . by chlorosulfonation
2323/36 . by reaction with nitrogen-containing compounds, e.g. by nitration
2325/00 Characterised by the use 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 an aromatic carboxylic ring; Derivatives of such polymers
2325/02 . Homopolymers or copolymers of hydrocarbons
2325/04 . Homopolymers or copolymers of styrene
2325/06 . Polystyrene
2325/08 . Copolymers of styrene (C08J 2329/08, C08J 2335/06, C08J 2355/02 take precedence)
2325/10 . with conjugated dienes
2325/12 . with unsaturated nitriles
2325/14 . with unsaturated esters
2325/16 . Homopolymers or copolymers of alkyl-substituted styrenes
2325/18 . Homopolymers or copolymers of aromatic monomers containing elements other than carbon and hydrogen
2327/00 Characterised by the use 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; Derivatives of such polymers
2327/02 . not modified by chemical after-treatment
2327/04 . containing chlorine atoms
2327/06 . Homopolymers or copolymers of vinyl chloride
2327/08 . Homopolymers or copolymers of vinylidene chloride
2327/10 . containing bromine or iodine atoms
2327/12 . containing fluorine atoms
2327/14 . Homopolymers or copolymers of vinyl fluoride
2327/16 . Homopolymers or copolymers of vinylidene fluoride
2327/18 . Homopolymers or copolymers of tetrafluoroethylene
2327/20 . Homopolymers or copolymers of hexafluoropropene
2327/22 . modified by chemical after-treatment
2327/24 . halogenated
2329/00 Characterised by the use 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 an alcohol, ether, aldehyde, ketonic, acetal, or ketal radical; Hydrolysed polymers of esters of unsaturated alcohols with saturated carboxylic acids; Derivatives of such polymer
2329/02 . Homopolymers or copolymers of unsaturated alcohols (C08J 2329/14 takes precedence)
2329/04 . Polyvinyl alcohol; Partially hydrolysed homopolymers or copolymers of esters of unsaturated alcohols with saturated carboxylic acids
2329/06 . Copolymers of allyl alcohol
2329/08 . . with vinyl aromatic monomers
2329/10 . Homopolymers or copolymers of unsaturated ethers (C08J 2335/08 takes precedence)
2329/12 . Homopolymers or copolymers of unsaturated ketones
2329/14 . Homopolymers or copolymers of acetics or ketals obtained by polymerisation of unsaturated acetics or ketals or by after-treatment of polymers of unsaturated alcohols
2331/00 Characterised by the use of 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, or carbonic acid, or of a haloformic acid (of hydrolysed polymers C08J 2329/00)
2331/02 . Characterised by the use of omopolymers or copolymers of esters of monocarboxylic acids
2331/04 . Homopolymers or copolymers of vinyl acetate
2331/06 . Homopolymers or copolymers of esters of polycarboxylic acids
Characterizing the main polymer used in a working-up process

2337/00 Characterised by the use 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 heterocyclic ring containing oxygen; Derivatives of such polymers

2337/02 Characterised by the use 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 single or double bond to nitrogen or by a heterocyclic ring containing nitrogen; Derivatives of such polymers

2339/00 Characterised by the use 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 single or double bond to nitrogen or by a heterocyclic ring containing nitrogen; Derivatives of such polymers

2339/02 Homopolymers or copolymers of vinylamine

2339/04 Homopolymers or copolymers of monomers containing heterocyclic rings having nitrogen as ring member

2339/06 Homopolymers or copolymers of N-vinyl-pyrrolidones

2339/08 Homopolymers or copolymers of vinyl-pyridine

2341/00 Characterised by the use 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 bond to sulfur or by a heterocyclic ring containing sulfur; Derivatives of such polymers

2343/00 Characterised by the use of 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; Derivatives of such polymers (of metal salts, e.g. phenolates, alcohohlates, see the parent compounds)

2343/02 Homopolymers or copolymers of monomers containing phosphorus

2343/04 Homopolymers or copolymers of monomers containing silicon
Characterizing the main polymer used in a working-up process

2351/06  .  grafted on to homopolymers or copolymers of aliphatic hydrocarbons containing only one carbon-to-carbon double bond
2351/08  .  grafted on to macromolecular compounds obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds
2351/10  .  grafted on to inorganic materials

2353/00  Characterised by the use of homopolymers or copolymers, obtained by polymerisation reactions only involving carbon-to-carbon unsaturated bonds, not provided for in groups C08J 2323/00 - C08J 2353/00

2353/02  .  of vinyl aromatic monomers and conjugated dienes

2355/00  Characterised by the use of homopolymers or copolymers, obtained by polymerisation reactions only involving carbon-to-carbon unsaturated bonds, not provided for in groups C08J 2323/00 - C08J 2353/00

2355/02  .  Acrylonitrile-Butadiene-Styrene [ABS] polymers
2355/04  .  Polyadducts obtained by the diene synthesis

2357/00  Characterised by the use of unspecified polymers obtained by reactions only involving carbon-to-carbon unsaturated bonds

2357/02  .  Copolymers of mineral oil hydrocarbons
2357/04  .  Copolymers in which only the monomer in minority is defined
2357/06  .  Homopolymers or copolymers containing elements other than carbon and hydrogen
2357/08  .  containing halogen atoms
2357/10  .  containing oxygen atoms
2357/12  .  containing nitrogen atoms

2359/00  Characterised by the use of polyacetals containing polyoxymethylene sequences only

2359/02  .  Copolyoxymethylene

2361/00  Characterised by the use of condensation polymers of aldehydes or ketones (with polyalcohols C08J 2359/00; with polynitriles C08J 2377/00); Derivatives of such polymers

2361/02  .  Condensation polymers of aldehydes or ketones only
2361/04  .  Condensation polymers of aldehydes or ketones with phenols only
2361/06  .  of aldehydes with phenols
2361/08  .  with monohydric phenols
2361/10  .  Phenol-formaldehyde condensates
2361/12  .  with polyhydric phenols
2361/14  .  Modified phenol-aldehyde condensates
2361/16  .  of ketones with phenols
2361/18  .  Condensation polymers of aldehydes or ketones with aromatic hydrocarbons or their halogen derivatives only
2361/20  .  Condensation polymers of aldehydes or ketones with only compounds containing hydrogen attached to nitrogen (with amino phenols C08J 2361/04)
2361/22  .  of aldehydes with acyclic or carbocyclic compounds
2361/24  .  with urea or thiourea
2361/26  .  of aldehydes with heterocyclic compounds
2361/28  .  with melamine
2361/30  .  of aldehydes with heterocyclic and acyclic or carbocyclic compounds

2361/32  .  Modified amine-aldehyde condensates
2361/34  .  Condensation polymers of aldehydes or ketones with monomers covered by at least two of the groups C08J 2361/04, C08J 2361/18, and C08J 2361/20

2363/00  Characterised by the use of epoxy resins; Derivatives of epoxy resins

2363/02  .  Polyglycidyl ethers of bis-phenols
2363/04  .  Epoxyvinolacols
2363/06  .  Triglycidylisocyanurates
2363/08  .  Epoxidised polymerised polyenes
2363/10  .  Epoxy resins modified by unsaturated compounds

2365/00  Characterised by the use of macromolecular compounds obtained by reactions forming a carbon-to-carbon link in the main chain (C08J 2307/00 - C08J 2357/00, C08J 2361/00 take precedence); Derivatives of such polymers

2365/02  .  Polyphenylenes
2365/04  .  Polyxylylenes

2367/00  Characterised by the use of polyesters obtained by reactions forming a carbon-carbon ester link in the main chain (of polyester-amides C08J 2377/12; of polyester-imides C08J 2379/08); Derivatives of such polymers

2367/02  .  Polyesters derived from dicarboxylic acids and dihydroxy compounds; (C08J 2367/06 takes precedence)
2367/03  .  the dicarboxylic acids and dihydroxy compounds having the hydroxy and the carboxyl groups directly linked to aromatic rings
2367/04  .  Polyesters derived from hydroxy carboxylic acids, e.g. lactones (C08J 2367/06 takes precedence)
2367/06  .  Unsaturated polyesters
2367/07  .  having terminal carbon-to-carbon unsaturated bonds
2367/08  .  Polyesters modified with higher fatty oils or their acids, or with resins or resin acids

2369/00  Characterised by the use of polycarbonates; Derivatives of polycarbonates

2371/00  Characterised by the use of polyethers derived from hydroxy carboxylic acids, or with resins or resin acids (C08J 2367/06 takes precedence)

2371/02  .  Polyalkylene oxides
2371/03  .  Polyepihalohydrins
2371/08  .  Polymers derived from hydroxy compounds or from their metallic derivatives (C08J 2371/02 takes precedence)

2371/10  .  from phenols
2371/12  .  .  .  Polyphenylene oxides
2371/14  .  .  .  Furfuryl alcohol polymers

2373/00  Characterised by the use of macromolecular compounds obtained by reactions forming a linkage containing oxygen or oxygen and carbon in the main chain, not provided for in groups C08J 2359/00 - C08J 2371/00; Derivatives of such polymers

2373/02  .  Polyanhydrides
Characterizing the main polymer used in a working-up process

2375/00 Characterised by the use of polyureas or polyurethanes; Derivatives of such polymers
2375/02 . . Polymers
2375/04 . . Polyurethanes
2375/06 . . . from polyesters
2375/08 . . . from polyethers
2375/10 . . . from polyacetal
2375/12 . . . from compounds containing nitrogen and active hydrogen, the nitrogen atom not being part of an isocyanate group
2375/14 . . . Polyurethanes having carbon-to-carbon unsaturated bonds
2375/16 . . . having terminal carbon-to-carbon unsaturated bonds

2377/00 Characterised by the use of polyamides obtained by reactions forming a carboxylic amide link in the main chain (of polyhydrazides C08J 2379/06; of polyamide-imides or polyamide acids C08J 2379/08); Derivatives of such polymers
2377/02 . . Polyamides derived from omega-aminocarboxylic acids or from lactams thereof (C08J 2377/10 takes precedence)
2377/04 . .Polyamides derived from alpha-aminocarboxylic acids (C08J 2377/10 takes precedence)
2377/06 . .Polyamides derived from polyanimes and polycarboxylic acids (C08J 2377/10 takes precedence)
2377/08 . . . from polyanimes and polymerised unsaturated fatty acids
2377/10 . . . Polymides derived from aromatically bound amino and carboxyl groups of amino carboxylic acids or of polyanimes and polycarboxylic acids
2377/12 . . . Polyester-amides

2379/00 Characterised by the use of 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 C08J 2361/00; C08J 2377/00
2379/02 . . Polymides
2379/04 . . Polycondensates having nitrogen-containing heterocyclic rings in the main chain; Polyhydrazides; Polyamide acids or similar polyimide precursors
2379/06 . . . Polyhydrazides; Polytetrazoles; Polyaminotriazoles; Polyoxyazadizoles
2379/08 . . . Polymides; Polyester-imides; Polyamide-imides; Polyamide acids or similar polyimide precursors

2381/00 Characterised by the use of 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; Polysulfones; Derivatives of such polymers
2381/02 . . Polythioethers; Polythioether-ethers
2381/04 . . Polysulfides
2381/06 . . Polysulfones; Polyethersulfones
2381/08 . . Polysulfonates
2381/10 . . Polysulfonamides; Polysulfonimidates

2383/00 Characterised by the use of 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; Derivatives of such polymers
2383/02 . . Polysilicates
2383/04 . . Polysiloxanes
2383/05 . . . containing silicon bound to hydrogen
2383/06 . . . containing silicon bound to oxygen-containing groups (C08J 2383/12 takes precedence)
2383/07 . . . containing silicon bound to unsaturated aliphatic groups
2383/08 . . . containing silicon bound to organic groups containing atoms other than carbon, hydrogen, and oxygen
2383/10 . . . Block- or graft-copolymers containing polysiloxane sequences (obtained by polymerising a compound having a carbon-to-carbon double bond on to a polysiloxane C08J 2351/08, C08J 2353/00)
2383/12 . . . containing polyether sequences
2383/14 . . . in which at least two but not all the silicon atoms are connected by linkages other than oxygen atoms (C08J 2383/10 takes precedence)
2383/16 . . . in which all the silicon atoms are connected by linkages other than oxygen atoms

2385/00 Characterised by the use of 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; Derivatives of such polymers
2385/02 . . containing phosphorus
2385/04 . . containing boron

2387/00 Characterised by the use of unspecified macromolecular compounds, obtained otherwise than by polymerisation reactions only involving unsaturated carbon-to-carbon bonds

2389/00 Characterised by the use of proteins; Derivatives thereof
2389/02 . . Casein-aldehyde condensates
2389/04 . . Products derived from waste materials, e.g. horn, hoof or hair
2389/06 . . . derived from leather or skin

2391/00 Characterised by the use of oils, fats or waxes; Derivatives thereof
2391/02 . . Vulcanised oils, e.g. factice
2391/04 . . Linoxyn
2391/06 . . Waxes
2391/08 . . . Mineral waxes

2393/00 Characterised by the use of natural resins; Derivatives thereof (of polysaccharides C08J 2301/00 - C08J 2305/00; of natural rubber C08J 2317/00)
2393/02 . . Shellac
2393/04 . . Rosin

2395/00 Bituminous materials, e.g. asphalt, tar or pitch

2397/00 Characterised by the use of lignin-containing materials (of polysaccharides C08J 2301/00 - C08J 2305/00)
Characterizing additional polymers used in a working-up process

2400/00 Characterised by the use of unspecified polymers
2400/10 Polymers characterised by the presence of specified groups, e.g. terminal or pendant functional groups
2400/12 Polymers characterised by physical features, e.g. anisotropy, viscosity or electrical conductivity
2400/16 Biodegradable polymers
2400/20 Polymers characterized by their physical structure
2400/24 Thermostable resins
2400/26 Elastomers
2400/30 Polymeric waste or recycled polymer

2401/00 Characterised by the use of cellulose, modified cellulose or cellulose derivatives
2401/02 Cellulose; Modified cellulose
2401/04 Oxy cellulose; Hydrocellulose
2401/06 Cellulose hydrate
2401/08 Cellulose derivatives
2401/10 Esters of organic acids
2401/12 Cellulose acetate
2401/14 Mixed esters
2401/16 Esters of inorganic acids
2401/18 Cellulose nitrate
2401/20 Esters of both organic acids and inorganic acids
2401/22 Cellulose xanthate
2401/24 Viscose
2401/26 Cellulose ethers
2401/28 Alkyl ethers
2401/30 Aryl ethers; Aralkyl ethers
2401/32 Cellulose ether-esters

2403/00 Characterised by the use of starch, amylose or amylopectin or of their derivatives or degradation products
2403/02 Starch; Degradation products thereof, e.g. dextrin
2403/04 Starch derivatives
2403/06 Esters
2403/08 Ethers
2403/10 Oxidised starch
2403/12 Amylose; Amylopectin; Degradation products thereof

2405/00 Characterised by the use of polysaccharides or of their derivatives not provided for in groups C08J 2401/00 or C08J 2403/00
2405/02 Dextran; Derivatives thereof
2405/04 Alginic acid; Derivatives thereof
2405/06 Pectin; Derivatives thereof
2405/08 Chitin; Chondroitin sulfate; Hyaluronic acid; Derivatives thereof
2405/10 Heparin; Derivatives thereof
2405/12 Agar-agar; Derivatives thereof
2405/14 Hemicellulose; Derivatives thereof
2405/16 Cyclodextrin; Derivatives thereof

2407/00 Characterised by the use of natural rubber
2407/02 Latex

2409/00 Characterised by the use of homopolymers or copolymers of conjugated diene hydrocarbons
2409/02 Copolymers with acrylonitrile
2409/04 Latex
2409/06 Copolymers with styrene
2409/08 Latex
2409/10 Latex (C08J 2409/04, C08J 2409/08 take precedence)

2411/00 Characterised by the use of homopolymers or copolymers of chloroprene
2411/02 Latex

2413/00 Characterised by the use of rubbers containing carboxyl groups
2413/02 Latex

2415/00 Characterised by the use of rubber derivatives (C08J 2411/00, C08J 2413/00 takes precedence)
2415/02 Rubber derivatives containing halogen

2417/00 Characterised by the use of reclaimed rubber

2419/00 Characterised by the use of rubbers not provided for in groups C08J 2407/00 - C08J 2417/00
2419/02 Latex

2421/00 Characterised by the use of unspecified rubbers
2421/02 Latex

2423/00 Characterised by the use of homopolymers or copolymers of unsaturated aliphatic hydrocarbons having only one carbon-to-carbon double bond; Derivatives of such polymers
2423/02 not modified by chemical after treatment
2423/04 Homopolymers or copolymers of ethene
2423/06 Polyethene
2423/08 Copolymers of ethene (C08J 2423/16 takes precedence)
2423/10 Homopolymers or copolymers of propene
2423/12 Polypropene
2423/14 Copolymers of propene (C08J 2423/16 takes precedence)
2423/16 Ethene-propene or ethene-propene-diene copolymers
Characterizing additional polymers used in a working-up process

2429/00 Characterised by the use 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 an alcohol, ether, aldehyde, ketonic, acetal, or ketal radical; Hydrolysed polymers of esters of unsaturated alcohols with saturated carboxylic acids; Derivatives of such polymer

2429/02 Homopolymers or copolymers of unsaturated alcohols (C08J 2429/14 takes precedence)

2429/04 Polyvinyl alcohol; Partially hydrolysed homopolymers or copolymers of esters of unsaturated alcohols with saturated carboxylic acids

2429/06 Copolymers of allyl alcohol

2429/08 with vinyl aromatic monomers

2429/10 Homopolymers or copolymers of unsaturated ethers (C08J 2435/08 takes precedence)

2429/12 Homopolymers or copolymers of unsaturated ketones

2429/14 Homopolymers or copolymers of acetals or ketals obtained by polymerisation of unsaturated acetals or ketals or by after-treatment of polymers of unsaturated alcohols

2431/00 Characterised by the use of 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, or carboxinic acid, or of a haloformic acid (of hydrolysed polymers C08J 2429/00)

2431/02 Characterised by the use of homopolymers or copolymers of esters of monocarboxylic acids

2431/04 Homopolymers or copolymers of vinyl acetate

2431/06 Homopolymers or copolymers of esters of polyarboxylic acids

2431/08 of phthalic acid

2433/00 Characterised by the use of homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and only one being terminated by only one carboxy radical, or of salts, anhydrides, esters, amides, imides, or nitriles thereof; Derivatives of such polymers

2433/02 Homopolymers or copolymers of acids; Metal or ammonium salts thereof

2433/04 esters

2433/06 of esters containing only carbon, hydrogen, and oxygen, the oxygen atom being present only as part of the carboxy radical

2433/08 Homopolymers or copolymers of acrylic acid esters

2433/10 Homopolymers or copolymers of methacrylic acid esters

2433/12 Homopolymers or copolymers of methyl methacrylate

2433/14 of esters containing halogen, nitrogen, sulfur, or oxygen atoms in addition to the carboxy oxygen

2433/16 Homopolymers or copolymers of esters containing halogen atoms

2433/18 Homopolymers or copolymers of nitriles
Characterizing additional polymers used in a working-up process

**C08J 2443/00**
Characterised by the use of homopolymers or copolymers of compounds having one more unsaturated aliphatic radicals, each having one or more carbon-to-carbon double bonds, and least one being terminated by a carboxyl radical, containing at least one other carboxyl radical in the molecule, or of salts, anhydrides, esters, amides, imides or nitriles thereof; Derivatives of such polymers

**C08J 2443/02**
Characterised by the use of homopolymers or copolymers of esters (C08J 2435/06, C08J 2435/08 take precedence)

**C08J 2443/04**
Characterised by the use of homopolymers or copolymers of nitriles (C08J 2435/06, C08J 2435/08 take precedence)

**C08J 2443/06**
Characterised by the use of homopolymers or copolymers of vinyl aromatic monomers

**C08J 2443/08**
Characterised by the use of homopolymers or copolymers of vinyl ethers

**C08J 2443/20**
Homopolymers or copolymers of acrylonitrile (C08J 2455/02 takes precedence)

**C08J 2443/22**
Homopolymers or copolymers of nitriles containing four or more carbon atoms

**C08J 2443/24**
Homopolymers or copolymers of amides or imides

**C08J 2443/26**
Homopolymers or copolymers of acrylamide or methacrylamide

**C08J 2445/00**
Characterised by the use 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 carboxyl radical, and containing at least one other carboxyl radical in the molecule, or of salts, anhydrides, esters, amides, imides or nitriles thereof; Derivatives of such polymers

**C08J 2445/02**
Characterised by the use of homopolymers or copolymers of esters (C08J 2435/06, C08J 2435/08 take precedence)

**C08J 2445/04**
Characterised by the use of homopolymers or copolymers of nitriles (C08J 2435/06, C08J 2435/08 take precedence)

**C08J 2445/06**
Characterised by the use of homopolymers or copolymers of vinyl aromatic monomers

**C08J 2445/08**
Characterised by the use of homopolymers or copolymers of vinyl ethers

**C08J 2449/00**
Characterised by the use of homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, each having one or more carbon-to-carbon double bonds; Derivatives of such polymers

**C08J 2451/00**
Characterised by the use of graft polymers in which the grafted component is obtained by reactions only involving carbon-to-carbon unsaturated bonds (for ABS polymers C08J 2455/02); Derivatives of such polymers

**C08J 2451/02**
Grafted to polyosaccharides

**C08J 2451/04**
Grafted to rubbers

**C08J 2451/06**
Grafted to homopolymers or copolymers of aliphatic hydrocarbons containing only one carbon-to-carbon double bond

**C08J 2451/08**
Grafted to macromolecular compounds obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds

**C08J 2451/10**
Grafted to inorganic materials

**C08J 2453/00**
Characterised by the use of homopolymers or copolymers, obtained by polymerisation reactions only involving carbon-to-carbon unsaturated bonds, not provided for in groups C08J 2423/00 - C08J 2453/00

**C08J 2453/02**
Of vinyl aromatic monomers and conjugated dienes

**C08J 2455/00**
Characterised by the use of homopolymers or copolymers, obtained by polymerisation reactions only involving carbon-to-carbon unsaturated bonds, not provided for in groups C08J 2423/00 - C08J 2453/00

**C08J 2455/02**
Acrylonitrile-Butadiene-Styrene [ABS] polymers

**C08J 2455/04**
Polyadducts obtained by the diene synthesis

**C08J 2457/00**
Characterised by the use of unspecified polymers obtained by reactions only involving carbon-to-carbon unsaturated bonds

**C08J 2457/02**
Copolymers of mineral oil hydrocarbons

**C08J 2457/04**
Copolymers in which only the monomer in minority is defined

**C08J 2457/06**
Homopolymers or copolymers containing elements other than carbon and hydrogen

**C08J 2457/08**
Containing halogen atoms

**C08J 2457/10**
Containing oxygen atoms
Characterizing additional polymers used in a working-up process

... containing nitrogen atoms

Characterised by the use of polyacetals containing polyoxymethylene sequences only

Copolyoxymethylenes

Characterised by the use of condensation polymers of aldehydes or ketones (with polyalcohols C08J 2459/00; with nitriles C08J 2477/00); Derivatives of such polymers

Condensation polymers of aldehydes or ketones only

Condensation polymers of aldehydes or ketones with phenols only

. . . of aldehydes with phenols

. . . with monohydric phenols

. . . Phenol-formaldehyde condensates

. . . with polyhydric phenols

. . . Modified phenol-aldehyde condensates

. . . of ketones with phenols

Condensation polymers of aldehydes or ketones with aromatic hydrocarbons or their halogen derivatives only

Condensation polymers of aldehydes or ketones with only compounds containing hydrogen attached to nitrogen (with amino phenols C08J 2461/04)

. . . of aldehydes with acyclic or carbocyclic compounds

. . . with urea or thiourea

. . . of aldehydes with heterocyclic compounds

. . . with melamine

. . . of aldehydes with heterocyclic and acyclic or carbocyclic compounds

. . . Modified amine-aldehyde condensates

Condensation polymers of aldehydes or ketones with monomers covered by at least two of the groups C08J 2461/04, C08J 2461/18, and C08J 2461/20

Characterised by the use of epoxy resins; Derivatives of epoxy resins

. Polyglycidyl ethers of bis-phenols

. Epoxynovolacs

. Triglycidylisocyanurates

. Epoxidised polymerised polyenes

. Epoxy resins modified by unsaturated compounds

Characterised by the use of macromolecular compounds obtained by reactions forming a carbon-to-carbon link in the main chain (C08J 2407/00; C08J 2457/00; C08J 2461/00) take precedence; Derivatives of such polymers

. Polyphenylenes

. Polyoxymethylene

Characterised by the use of polyesters obtained by reactions forming a carboxylic ester link in the main chain (of polyester-amides C08J 2477/12; of polyamide-imides C08J 2479/08); Derivatives of such polymers

. Polymers derived from dicarboxylic acids and dihydroxy compounds (C08J 2467/06 takes precedence)

. . . the dicarboxylic acids and dihydroxy compounds having the hydroxy and the carbonyl groups directly linked to aromatic rings

. Polymers derived from hydroxy carboxylic acids, e.g. lactones (C08J 2467/06 takes precedence)

. Unsaturated polyesters

. . . having terminal carbon-to-carbon unsaturated bonds

. Polymers modified with higher fatty oils or their acids, or with resins or resin acids

Characterised by the use of polycarbonates; Derivatives of polycarbonates

Characterised by the use of polycarbonates obtained by reactions forming an ether link in the main chain (of polyacetals C08J 2459/00; of epoxy resins C08J 2463/00; of polythioether-ethers C08J 2481/02; of polyethersulfones C08J 2481/06); Derivatives of such polymers

. Polyalkylene oxides

. . . Polyphenylene oxides

. . . Furfuryl alcohol polymers

Characterised by the use of macromolecular compounds obtained by reactions forming a linkage containing oxygen or oxygen and carbon in the main chain, not provided for in groups C08J 2459/00 - C08J 2471/00; Derivatives of such polymers

. Polyhydrides

Characterised by the use of polyureas or polyurethanes; Derivatives of such polymers

. Polyureas

. Polyurethanes

. . . from polyesters

. . . from polyesters

. . . from polyacets

. . . from compounds containing nitrogen and active hydrogen, the nitrogen atom not being part of an isocyanate group

. . . Polyurethanes having carbon-to-carbon unsaturated bonds

. . . having terminal carbon-to-carbon unsaturated bonds

Characterised by the use of polylamines obtained by reactions forming a carboxylic amide link in the main chain (of polyhydrazides C08J 2479/06; of polyamide-imides or polyamide acids C08J 2479/08); Derivatives of such polymers

. Polylamines derived from omega-amino carboxylic acids or from lactams thereof (C08J 2477/10 takes precedence)

. Polylamines derived from alpha-amino carboxylic acids (C08J 2477/10 takes precedence)

. Polylamines derived from polyamines and polyoxyalkylene glycols (C08J 2477/10 takes precedence)

. . . from polyamines and polymerised unsaturated fatty acids
Characterizing additional polymers used in a working-up process

Polyamides derived from aromatically bound amino and carboxyl groups of amino carboxylic acids or of polyanimes and polycarboxylic acids

Characterised by the use of 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 C08J 2461/00 - C08J 2477/00

Polyester-amides

Characterised by the use of 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 C08J 2461/00 - C08J 2477/00

Polyamines

Polycondensates having nitrogen-containing heterocyclic rings in the main chain; Polyhydrazides; Polyamide acids or similar polyimide precursors

Polyimides; Polyester-imides; Polyamide-imides; Polyamide acids or similar polyimide precursors

Characterised by the use of 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; Polysulfones; Derivatives of such polymers

Polythioethers; Polythioether-ethers

Polysulfides

Polysulfones; Polyesulfones

Polysulfonates

Polysulfonamides; Polysulfonimides

Characterised by the use of 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; Derivatives of such polymers

Polysilicates

Polysiloxanes

containing silicon bound to hydrogen

containing silicon bound to oxygen-containing groups (C08J 2483/12 takes precedence)

containing silicon bound to unsaturated aliphatic groups

containing silicon bound to organic groups containing atoms other than carbon, hydrogen, and oxygen

Block- or graft-copolymers containing polysiloxane sequences (obtained by polymerising a compound having a carbon-to-carbon double bond on to a polysiloxane (C08J 2451/08, C08J 2453/00)

containing polyether sequences

in which at least two but not all the silicon atoms are connected by linkages other than oxygen atoms (C08J 2483/10 takes precedence)

in which all the silicon atoms are connected by linkages other than oxygen atoms

Characterised by the use of unspecified macromolecular compounds, obtained otherwise than by polymerisation reactions only involving unsaturated carbon-to-carbon bonds

Characterised by the use of proteins; Derivatives thereof

Casein-aldehyde condensates

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

derived from leather or skin

Characterised by the use of oils, fats or waxes; Derivatives thereof

Vulcanised oils, e.g. factice

Linoxyn

Waxes

Mineral waxes

Characterised by the use of natural resins; Derivatives thereof (of polysaccharides C08J 2401/00 - C08J 2405/00; of natural rubber C08J 2417/00)

Shellac

Rosin

Bituminous materials, e.g. asphalt, tar or pitch

Characterised by the use of lignin-containing materials (of polysaccharides C08J 2401/00 - C08J 2405/00)

Lignocellulosic material, e.g. wood, straw or bagasse

Characterised by the use of natural macromolecular compounds or of derivatives thereof not provided for in groups C08J 2401/00 - C08J 2407/00 or C08J 2489/00 - C08J 2497/00