

CPC**COOPERATIVE PATENT CLASSIFICATION****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](#))

NOTE

1. This subclass covers processes, not covered by subclasses [C08B](#) to [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 M08J300 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](#) .

The use of a polymeric component in minority, e.g. masterbatch, coating, impregnating agent or thin binder is indicated using indexing codes chosen from M08J400 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 7/047](#) 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](#)

In the following subgroups, the codes of [C08J 2300/00](#) to [C08J 2399/00](#) are used to specify: - [C08J 3/226](#) : the polymeric material to which the masterbatch carrier is added. - [C08J 7/047](#) : the polymeric substrate to be coated. - [C08J 9/0061](#) : the polymeric component in majority in a multicomponents foamable blend.

3. Group M08J400 was introduced on January 1st, 2012. Patent documents are continuously being reclassified. As a consequence, documents published before 01/01/2012, and to which M08J400 indexing codes were allocated, are indexed in the corresponding head group. Example: - Use of PMMA as masterbatch in a polystyrene composition: [C08J 3/226](#) and [C08J 2325/06](#) and [C08J 2433/00](#) , instead of [C08J 2433/10](#) . In the following subgroups, the codes of [C08J 2400/00](#) to [C08J 2499/00](#) are used to specify: - [C08J 3/226](#) : the polymeric carrier in a masterbatch. - [C08J 5/12](#) : the chemical nature of the adhesive - [C08J 7/047](#) : the chemical nature of the coating(s). - [C08J 9/0061](#) : the polymeric component in minority in a multicomponents foamable 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.

WARNING

The following IPC groups are not used in the CPC system. Subject matter covered by these groups is classified in the following CPC groups:

[C08J 5/14](#) covered by [B24D 3/20](#) , [F16D 69/02](#)

[C08J 5/16](#) covered by [C10M](#)

Guidance heading:**C08J 3/00 Processes of treating or compounding macromolecular substances**

- C08J 3/005 . { Processes for mixing polymers }
- C08J 3/02 . Making solutions, dispersions or latices by other methods than by solution, emulsion or suspension polymerisation techniques
 - C08J 3/03 . . in aqueous media
 - C08J 3/05 . . . from solid polymers
 - C08J 3/07 . . . from polymer solutions
 - C08J 3/075 . . . Macromolecular gels
 - C08J 3/09 . . in organic liquids
 - C08J 3/091 . . . { characterised by the chemical constitution of the organic liquid }
 - C08J 3/092 { Hydrocarbons }
 - C08J 3/093 { Halogenated hydrocarbons }
 - C08J 3/095 { Oxygen containing compounds }
 - C08J 3/096 { Nitrogen containing compounds }
 - C08J 3/097 { Sulfur containing compounds }
 - C08J 3/098 { Other compounds }
 - C08J 3/11 . . . from solid polymers
- C08J 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](#)) }
- C08J 3/122 . . { Pulverisation by spraying }
- C08J 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](#)) }
- C08J 3/126 . . { Polymer particles coated by polymer, e.g. core shell structures (process or devices for granulating material, e.g. coating [B01J 2/003](#)) }
- C08J 3/128 . . { Polymer particles coated by inorganic and organic compounds (macromolecules [C08J 3/126](#)) }
- C08J 3/14 . . by precipitation from solutions { ([C08J 3/122](#) takes precedence) }
- C08J 3/16 . . by coagulating dispersions { ([C08J 3/122](#) takes precedence; treatment of polymer emulsion, e.g. coagulation [C08F 6/22](#)) }
- C08J 3/18 . Plasticising macromolecular compounds (plasticisers [C08K](#))
- C08J 3/20 . Compounding polymers with additives, e.g. colouring
 - C08J 3/201 . . { Pre-melted polymers }
 - C08J 3/203 . . { Solid polymers with solid and/or liquid additives }

- C08J 3/205 .. in the presence of a { continuous } liquid phase
- C08J 3/2053 ... { the additives only being premixed with a liquid phase }
- C08J 3/2056 { the polymer being pre-melted }
- C08J 3/21 ... the polymer being premixed with a liquid phase
- C08J 3/212 { and solid additives }
- C08J 3/215 at least one additive being also premixed with a liquid phase
- C08J 3/22 .. using masterbatch techniques
- C08J 3/223 ... { Packed additives }
- C08J 3/226 ... { using a polymer as a carrier (see remark 2) }

- C08J 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 3/20](#) })
- C08J 3/241 .. { Preventing premature crosslinking by physical separation of components, e.g. encapsulation (of other ingredients [C08K 9/00](#)) }
- C08J 3/242 .. { Applying crosslinking or accelerating agent onto compounding ingredients such as fillers, reinforcements }
- C08J 3/243 .. { Two or more independent types of crosslinking for one or more polymers }
- C08J 3/244 .. { Stepwise homogeneous crosslinking of one polymer with one crosslinking system, e.g. partial curing }
- C08J 3/245 .. { Differential crosslinking of one polymer with one crosslinking type, e.g. surface crosslinking }
- C08J 3/246 .. { Intercrosslinking of at least two polymers }
- C08J 3/247 .. { Heating methods }
- C08J 3/248 .. { Measuring crosslinking reactions }
- C08J 3/26 .. of latex

- C08J 3/28 . Treatment by wave energy or particle radiation

- C08J 5/00** **Manufacture of articles or shaped materials containing macromolecular substances** (shaping of foodstuffs [A23P](#) ; manufacture of semi-permeable membranes [B01D 67/00](#) to [B01D 71/00](#) ; mechanical features, see the relevant classes, e.g. [B29](#))

- C08J 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](#)) }

- C08J 5/02 . Direct processing of dispersions, e.g. latex, to articles

- C08J 5/04 . Reinforcing macromolecular compounds with loose or coherent fibrous material (after-treatment of threads during manufacture [D01F](#) ; { finishing of textiles [D06M](#) })
- C08J 5/041 .. { with metal fibres }
- C08J 5/042 .. { with carbon fibres }
- C08J 5/043 .. { with glass fibres }
- C08J 5/044 .. { with other inorganic fibres }
- C08J 5/045 .. { with vegetable or animal fibrous material }

- C08J 5/046 .. { with synthetic macromolecular fibrous material } { Note: Note 2 following the title of subclass [C08J](#) may be applied }
- C08J 5/047 .. { with mixed fibrous material }
- C08J 5/048 ... { Macromolecular compound to be reinforced also in fibrous form }
- C08J 5/06 .. using pretreated fibrous materials
- C08J 5/08 ... glass fibres
- C08J 5/10 .. characterised by the additives used in the polymer mixture

- C08J 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](#)) }
- C08J 5/121 .. { by heating }
- C08J 5/122 .. { using low molecular chemically inert solvents, swelling or softening agents }
- C08J 5/124 .. { using adhesives based on a macromolecular component ([adhesive compositions per se C09J 4/00](#) , [C09J 101/00](#) to [C09J 201/00](#)) }
- C08J 5/125 ... { Adhesives in organic diluents }
- C08J 5/127 ... { Aqueous adhesives }
- C08J 5/128 ... { Adhesives without diluent }

- C08J 5/18 . 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](#) }

- C08J 5/20 . Manufacture of shaped of ion-exchange resins [Use of macromolecular compounds as anion [B01J 41/14](#) or cation [B01J 39/20](#) exchangers]

- C08J 5/22 .. Films, membranes, or diaphragms { ([ion-exchange in general, B01J 39/18](#) - [B01J 39/22](#) , [B01J 41/12](#) - [B01J 41/16](#) , [B01J 43/00](#) , [B01J 45/00](#) , [B01J 47/12](#) - [B01J 49/00](#) ; fuel cells with polymeric electrolyte material [H01M 8/1018](#)) }

NOTE

[N: 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. SO₂F, 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. SO₂H, are considered as such.
4. Ion-exchanging fibrous fabrics are considered as heterogeneous membranes and are classified in [C08J 5/2275](#) ; they include composite membranes, mixtures of two or more (ion exchange) polymers.
5. Membranes obtained by homogeneous 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 5/22 D](#).

7. Quaternising reactions are not considered as after-treatments.

- C08J 5/2206 . . . { based on organic and/or inorganic macromolecular compounds }
- C08J 5/2212 { Natural macromolecular compounds }
- C08J 5/2218 { Synthetic macromolecular compounds }
- C08J 5/2225 { containing fluorine }
- C08J 5/2231 { based on macromolecular compounds obtained by reactions involving unsaturated carbon-to-carbon bonds }
- C08J 5/2237 { containing fluorine }
- C08J 5/2243 { obtained by introduction of active groups capable of ion-exchange into compounds of the type [C08J 5/2231](#) }
- C08J 5/225 { containing fluorine }
- C08J 5/2256 { based on macromolecular compounds obtained by reactions other than those involving carbon-to-carbon bonds, e.g. obtained by polycondensation }
- C08J 5/2262 { containing fluorine }
- C08J 5/2268 { based on macromolecular compounds obtained by reactions involving unsaturated carbon-to-carbon bonds, and by reactions not involving this type of bond }
- C08J 5/2275 { Heterogeneous membranes }
- C08J 5/2281 { fluorine containing heterogeneous membranes }
- C08J 5/2287 . . . { After-treatment }
- C08J 5/2293 { After-treatment of fluorine-containing membranes }
- C08J 5/24 . . . Impregnating materials with prepolymers which can be polymerised in situ, e.g. manufacture of preregs

C08J 7/00 **Chemical treatment or coating of shaped articles made of macromolecular substances** (coating with metallic material [C23C](#) ; electrolytic deposition of metals [C25](#))

- C08J 7/02 . . . with solvents, e.g. swelling agents
- C08J 7/04 . . . Coating { (Coating compositions per se [C09D 4/00](#) , [C09D 101/00](#) to [C09D 201/00](#)) }
- C08J 7/042 . . . { with two or more layers, where at least one layer of a composition contains a polymer binder }
- C08J 7/045 . . . { with at least one layer of inorganic material and at least one layer of a composition containing a polymer binder }
- C08J 7/047 . . . { with only one layer of a composition containing a polymer binder (with more layers [C08J 7/042](#)) }
- C08J 7/06 . . . with compositions not containing macromolecular substances
- C08J 7/065 . . . { Low-molecular-weight organic substances e.g. absorption of additives in the surface of the article }
- C08J 7/08 . . . Heat treatment
- C08J 7/12 . . . Chemical modification

- C08J 7/123 . . { 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](#)) }
- C08J 7/126 . . { Halogenation }
- C08J 7/14 . . with acids, their salts or anhydrides
- C08J 7/16 . . with polymerisable compounds
- C08J 7/18 . . . using wave energy or particle radiation

- C08J 9/00** **Working-up of macromolecular substances to porous or cellular articles or materials ; After-treatment thereof** (mechanical aspects [B29D 27/00](#) ; foamed polymeric products of isocyanates or isothiocyanates characterised by the monomers or catalysts used [C08G 18/00](#))

- C08J 9/0004 . { Use of compounding ingredients, the chemical constitution of which is unknown, broadly defined, or irrelevant }
- C08J 9/0009 . . { Phase change materials }

- C08J 9/0014 . { Use of organic additives }
- C08J 9/0019 . . { halogenated }
- C08J 9/0023 . . { containing oxygen }
- C08J 9/0028 . . { containing nitrogen }
- C08J 9/0033 . . { containing sulfur }
- C08J 9/0038 . . { containing phosphorus }
- C08J 9/0042 . . { containing silicon }
- C08J 9/0047 . . { containing boron }
- C08J 9/0052 . . { Organo-metallic compounds }
- C08J 9/0057 . . { containing antimony, arsenic, or bismuth }

- C08J 9/0061 . characterized by the use of several polymeric components

- C08J 9/0066 . { Use of inorganic compounding ingredients }
- C08J 9/0071 . . { Nano-sized fillers, i.e. having at least one dimension below 100 nanometers }
- C08J 9/0076 . . . { Nano-fibres }
- C08J 9/008 . . . { Nano-particles }

- C08J 9/0085 . { Use of fibrous compounding ingredients ([C08J 9/0076](#) takes precedence) }

- C08J 9/009 . { Use of pretreated compounding ingredients }

- C08J 9/0095 . { Mixtures of at least two compounding ingredients belonging to different one-dot groups }

- C08J 9/02 . using blowing gases generated by the reacting monomers or modifying agents during the preparation or modification of macromolecules

- C08J 9/04 . using blowing gases generated by a previously added blowing agent
- C08J 9/06 . . by a chemical blowing agent
- C08J 9/065 . . . { Hydrides or carbides }

| | | |
|------------|-------|--|
| C08J 9/08 | ... | developing carbon dioxide |
| C08J 9/10 | ... | developing nitrogen, { the blowing agent being a compound containing a nitrogen-to-nitrogen bond } |
| C08J 9/101 | .... | { Agents modifying the decomposition temperature } |
| C08J 9/102 | .... | { Azo-compounds } |
| C08J 9/103 | ..... | { Azodicarbonamide } |
| C08J 9/104 | .... | { Hydrazines; Hydrazides; Semicarbazides; Semicarbazones; Hydrazones; Derivatives thereof } |
| C08J 9/105 | ..... | { containing sulfur } |
| C08J 9/106 | .... | { Azides } |
| C08J 9/107 | .... | { Nitroso compounds } |
| C08J 9/108 | .... | { in a heterocyclic ring containing at least one carbon atom } |
| C08J 9/12 | .. | by a physical blowing agent |
| C08J 9/122 | ... | { Hydrogen, oxygen, CO ₂ , nitrogen or noble gases } |
| C08J 9/125 | ... | { Water, e.g. hydrated salts } |
| C08J 9/127 | ... | { Mixtures of organic and inorganic blowing agents } |
| C08J 9/14 | ... | organic |
| C08J 9/141 | .... | { Hydrocarbons } |
| C08J 9/142 | .... | { Compounds containing oxygen but no halogen atom } |
| C08J 9/143 | .... | { Halogen containing compounds } |
| C08J 9/144 | ..... | { containing carbon, halogen and hydrogen only } |
| C08J 9/145 | ..... | { only chlorine as halogen atoms } |
| C08J 9/146 | ..... | { only fluorine as halogen atoms } |
| C08J 9/147 | ..... | { containing carbon and halogen atoms only } |
| C08J 9/148 | ..... | { perfluorinated } |
| C08J 9/149 | .... | { Mixtures of blowing agents covered by more than one of the groups C08J 9/141 to C08J 9/143 } |

NOTE

In groups [C08J 9/16](#) to [C08J 9/232](#) , the following term is used with the meaning indicated:

- "expandable" includes also expanding, pre-expanded or expanded

| | | |
|------------|-----|---|
| C08J 9/16 | . | Making expandable particles |
| C08J 9/18 | .. | by impregnating polymer particles with the blowing agent |
| C08J 9/20 | .. | by suspension polymerisation in the presence of the blowing agent |
| C08J 9/22 | . | After-treatment of expandable particles ; Forming foamed products |
| C08J 9/224 | .. | Surface treatment |
| C08J 9/228 | .. | Forming foamed products |
| C08J 9/232 | ... | by sintering expandable particles |
| C08J 9/236 | ... | using binding agents |

- C08J 9/24
 - by surface fusion and bonding of particles to form voids, e.g. sintering (of expandable particles [C08J 9/232](#))
- C08J 9/26
 - by elimination of a solid phase from a macromolecular composition or article, e.g. leaching out
- C08J 9/28
 - by elimination of a liquid phase from a macromolecular composition or article, e.g. drying of coagulum
- C08J 9/283
 - .. { a discontinuous liquid phase emulsified in a continuous macromolecular phase }
- C08J 9/286
 - .. { the liquid phase being a solvent for the monomers but not for the resulting macromolecular composition, i.e. macroporous or macroreticular polymers }
- C08J 9/30
 - by mixing gases into liquid compositions or plastisols, e.g. frothing with air
- C08J 9/32
 - from compositions containing microballoons, e.g. syntactic foams (making microballoons [B01J 13/02](#))
- C08J 9/33
 - Agglomerating foam fragments, e.g. waste foam
- C08J 9/34
 - 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
- C08J 9/35
 - Composite foams, i.e. continuous macromolecular foams containing discontinuous cellular particles or fragments
- C08J 9/36
 - After-treatment
- C08J 9/365
 - .. { Coating }
- C08J 9/38
 - .. Destruction of cell membranes
- C08J 9/40
 - .. Impregnation
- C08J 9/405
 - ... { with polymerisable compounds }
- C08J 9/42
 - ... with macromolecular compounds
- C08J 11/00**
 - Recovery or working-up of waste materials** (polymerisation processes involving purification or recycling of waste polymers or their depolymerisation products [C08B](#) , [C08C](#) , [C08F](#) , [C08G](#) , [C08H](#) ; mechanical treatments [B29](#))
- C08J 11/02
 - of solvents, plasticisers or unreacted monomers
- C08J 11/04
 - of polymers
- C08J 11/06
 - .. without chemical reactions
- C08J 11/08
 - ... 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](#))
- C08J 11/10
 - .. 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 polyesters, [C07C 51/09](#) , [C07C 63/26](#) ; depolymerisation of polyamides [C07D 201/12](#) ; depolymerisation of rubber [C08C 19/08](#) })

| | | |
|-------------|-------|--|
| C08J 11/105 | ... | { by treatment with enzymes } |
| C08J 11/12 | ... | by dry-heat treatment only (destructive distillation of carbonaceous materials for production of gas, coke, tar or similar matters C10B) |
| C08J 11/14 | ... | by treatment with steam or water |
| C08J 11/16 | ... | by treatment with inorganic material (C08J 11/14 takes precedence) |
| C08J 11/18 | ... | by treatment with organic material |
| C08J 11/20 | .... | by treatment with hydrocarbons or halogenated hydrocarbons |
| C08J 11/22 | .... | by treatment with organic oxygen-containing compounds |
| C08J 11/24 | ..... | containing hydroxyl groups |
| C08J 11/26 | ..... | containing carboxylic acid groups, their anhydrides or esters |
| C08J 11/28 | .... | by treatment with organic compounds containing nitrogen, sulfur or phosphorus |

C08J 99/00 **Subject matter not provided for in other groups of this subclass**

Guidance heading:

C08J 2201/00 **Foams characterised by the foaming process**

| | | |
|---------------|----|---|
| C08J 2201/02 | . | characterised by mechanical pre- or post-treatments |
| C08J 2201/022 | .. | premixing or pre-blending a part of the components of a foamable composition, e.g. premixing the polyol with the blowing agent, surfactant and catalyst and only adding the isocyanate at the time of foaming |
| C08J 2201/024 | .. | Preparation or use of a blowing agent concentrate, i.e. masterbatch in a foamable composition |
| C08J 2201/026 | .. | Crosslinking before or after foaming |
| C08J 2201/028 | .. | Foaming by preparing of a high internal phase emulsion |
| C08J 2201/03 | .. | Extrusion of the foamable bend |
| C08J 2201/032 | .. | Impregnation of a formed object with a gas (expandable particles, e.g. polystyrene beads C08J 9/18) |
| C08J 2201/034 | .. | Post-expanding of foam beads or sheets |
| C08J 2201/036 | .. | Use of an organic, non-polymeric compound to impregnate, bind or coat a foam, e.g. fatty acid ester |
| C08J 2201/038 | .. | Use of an inorganic compound to impregnate, bind or coat a foam, e.g. waterglass |
| C08J 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](#) to [M08J 201/05444](#)

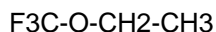
| | | |
|----------------|-----|---|
| C08J 2201/042 | .. | Elimination of an organic solid phase |
| C08J 2201/0422 | ... | containing oxygen atoms, e.g. saccharose |
| C08J 2201/0424 | ... | containing halogen, nitrogen, sulphur or phosphorus atoms |

- C08J 2201/044 . . Elimination of an inorganic solid phase
- C08J 2201/0442 . . . the inorganic phase being a metal, its oxide or hydroxide
- C08J 2201/0444 . . . Salts
- C08J 2201/0446 Elimination of NaCl only
- C08J 2201/046 . . Elimination of a polymeric phase
- C08J 2201/0462 . . . using organic solvents
- C08J 2201/0464 . . . using water or inorganic fluids
- C08J 2201/048 . . Elimination of a frozen liquid phase
- C08J 2201/0482 . . . the liquid phase being organic
- C08J 2201/0484 . . . the liquid phase being aqueous
- C08J 2201/05 . . Elimination by evaporation or heat degradation of a liquid phase
- C08J 2201/0502 . . . the liquid phase being organic
- C08J 2201/0504 . . . the liquid phase being aqueous
- C08J 2201/052 . . Inducing phase separation by thermal treatment, e.g. cooling a solution
- C08J 2201/0522 . . . the liquid phase being organic
- C08J 2201/0524 . . . the liquid phase being aqueous
- C08J 2201/054 . . Precipitating the polymer by adding a non-solvent or a different solvent
- C08J 2201/0542 . . . from an organic solvent-based polymer composition
- C08J 2201/0543 the non-solvent being organic
- C08J 2201/0544 the non-solvent being aqueous
- C08J 2201/0545 . . . from an aqueous solvent-based polymer composition
- C08J 2201/0546 the non-solvent being organic
- C08J 2201/0547 the non-solvent being aqueous

Guidance heading:

C08J 2203/00 Foams characterized by the expanding agent

- C08J 2203/02 . CO₂-releasing, e.g. NaHCO₃ and citric acid
- C08J 2203/04 . N₂ releasing, ex azodicarbonamide or nitroso compound
- C08J 2203/06 . CO₂, N₂ or noble gases
- C08J 2203/08 . Supercritical fluid
- C08J 2203/10 . Water or water-releasing compounds
- C08J 2203/12 . Organic compounds only containing carbon, hydrogen and oxygen atoms, e.g. ketone or alcohol
- C08J 2203/14 . Saturated hydrocarbons, e.g. butane ; Unspecified hydrocarbons
- C08J 2203/142 . . Halogenated saturated hydrocarbons, e.g. H₃C-CF₃
- C08J 2203/144 . . . Perhalogenated saturated hydrocarbons, e.g. F₃C-CF₃
- C08J 2203/146 . . Saturated hydrocarbons containing oxygen and halogen atoms, e.g.



- C08J 2203/16 . Unsaturated hydrocarbons
- C08J 2203/162 . . Halogenated unsaturated hydrocarbons, e.g. $\text{H}_2\text{C=CF}_2$
- C08J 2203/164 . . . Perhalogenated unsaturated hydrocarbons, e.g. $\text{F}_2\text{C=CF}_2$
- C08J 2203/166 . . Unsaturated hydrocarbons containing oxygen and halogen atoms, e.g. $\text{F}_3\text{C-O-CH=CH}_2$
- C08J 2203/18 . Binary blends of expanding agents
- C08J 2203/182 . . of physical blowing agents, e.g. acetone and butane

NOTE

The blowing agents should be specified by using codes [C08J 2203/06](#) to [C08J 2203/166](#) .

- C08J 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](#) to [C08J 2203/166](#) .

- C08J 2203/20 . Ternary blends of expanding agents
- C08J 2203/202 . . of physical blowing agents

NOTE

The blowing agents should be specified by using codes [C08J 2203/02](#) to [C08J 2203/166](#) .

- C08J 2203/204 . . of chemical foaming agent and physical blowing agents

NOTE

The expanding agents should be specified by using codes [C08J 2203/02](#) to [C08J 2203/166](#) .

- C08J 2203/22 . Expandable microspheres, e.g. Expancel®

C08J 2205/00 Foams characterised by their properties

- C08J 2205/02 . the finished foam itself being a gel or a gel being temporarily formed when processing the foamable composition
- C08J 2205/022 . . Hydrogel, i.e. a gel containing an aqueous composition
- C08J 2205/024 . . Organogel, i.e. a gel containing an organic composition
- C08J 2205/026 . . Aerogel, i.e. a supercritically dried gel
- C08J 2205/028 . . Xerogel, i.e. an air dried gel
- C08J 2205/04 . characterised by the foam pores

- C08J 2205/042 . . Nanopores, i.e. the average diameter being smaller than 0,1 micrometer
- C08J 2205/044 . . Micropores, i.e. average diameter being between 0,1 micrometer and 0,1 millimeter
- C08J 2205/046 . . Unimodal pore distribution
- C08J 2205/048 . . Bimodal pore distribution, e.g. micropores and nanopores coexisting in the same foam
- C08J 2205/05 . . Open cells, i.e. more than 50% of the pores are open
- C08J 2205/052 . . Closed cells, i.e. more than 50% of the pores are closed
- C08J 2205/06 . Flexible foams
- C08J 2205/08 . Semi-flexible foams
- C08J 2205/10 . Rigid foams

C08J 2207/00 Foams characterised by their intended use

- C08J 2207/02 . Adhesive
- C08J 2207/04 . Aerosol, e.g. polyurethane foam spray
- C08J 2207/06 . Electrical wire insulation
- C08J 2207/10 . Medical applications, e.g. biocompatible scaffolds
- C08J 2207/12 . Sanitary use, e.g. diapers, napkins or bandages

Guidance heading:

C08J 2300/00 Characterised by the use of unspecified polymers

- C08J 2300/10 . Polymers characterised by the presence of specified groups, e.g. terminal or pendant functional groups
 - C08J 2300/102 . . containing halogen atoms
 - C08J 2300/104 . . containing oxygen atoms
 - C08J 2300/105 . . . containing carboxyl groups
 - C08J 2300/106 . . containing nitrogen atoms
 - C08J 2300/108 . . containing hydrolysable silane groups
- C08J 2300/12 . Polymers characterised by physical features, e.g. anisotropy, viscosity or electrical conductivity
- C08J 2300/14 . Water soluble or water swellable polymers, e.g. aqueous gels
- C08J 2300/16 . Biodegradable polymers
- C08J 2300/20 . Polymers characterized by their physical structure
 - C08J 2300/202 . . Dendritic macromolecules, e.g. dendrimers or hyperbranched polymers

- C08J 2300/204 . . Supramolecular materials
- C08J 2300/206 . . Star polymers
- C08J 2300/208 . . Interpenetrating networks (IPN)
- C08J 2300/21 . . Polyrotaxanes ; Polycatenanes
- C08J 2300/22 . Thermoplastic resins
- C08J 2300/24 . Thermosetting resins
- C08J 2300/26 . Elastomers
- C08J 2300/30 . Polymeric waste or recycled polymer

Guidance heading: Characterizing the main polymer used in a working-up process

C08J 2301/00 Characterised by the use of cellulose, modified cellulose or cellulose derivatives

- C08J 2301/02 . Cellulose ; Modified cellulose
- C08J 2301/04 . Oxycellulose ; Hydrocellulose
- C08J 2301/06 . Cellulose hydrate
- C08J 2301/08 . Cellulose derivatives
 - C08J 2301/10 . . Esters of organic acids
 - C08J 2301/12 . . . Cellulose acetate
 - C08J 2301/14 . . Mixed esters
 - C08J 2301/16 . . Esters of inorganic acids
 - C08J 2301/18 . . . Cellulose nitrate
 - C08J 2301/20 . . Esters of both organic acids and inorganic acids
 - C08J 2301/22 . . Cellulose xanthate
 - C08J 2301/24 . . . Viscose
 - C08J 2301/26 . . Cellulose ethers
 - C08J 2301/28 . . . Alkyl ethers
 - C08J 2301/30 . . . Aryl ethers ; Aralkyl ethers
 - C08J 2301/32 . . Cellulose ether-esters

C08J 2303/00 Characterised by the use of starch, amylose or amylopectin or of their derivatives or degradation products

- C08J 2303/02 . Starch ; Degradation products thereof, e.g. dextrin
- C08J 2303/04 . Starch derivatives
 - C08J 2303/06 . . Esters
 - C08J 2303/08 . . Ethers

- C08J 2303/10 . . Oxidised starch
- C08J 2303/12 . Amylose ; Amylopectin ; Degradation products thereof
- C08J 2303/14 . Amylose derivatives ; Amylopectin derivatives
- C08J 2303/16 . . Esters
- C08J 2303/18 . . Ethers
- C08J 2303/20 . . Oxidised amylose ; Oxidised amylopectin

- C08J 2305/00** **Characterised by the use of polysaccharides or of their derivatives not provided for in groups [C08J 2301/00](#) or [C08J 2303/00](#)**
- C08J 2305/02 . Dextran ; Derivatives thereof
- C08J 2305/04 . Alginic acid ; Derivatives thereof
- C08J 2305/06 . Pectin ; Derivatives thereof
- C08J 2305/08 . Chitin ; Chondroitin sulfate ; Hyaluronic acid ; Derivatives thereof
- C08J 2305/10 . Heparin ; Derivatives thereof
- C08J 2305/12 . Agar-agar ; Derivatives thereof
- C08J 2305/14 . Hemicellulose ; Derivatives thereof
- C08J 2305/16 . Cyclodextrin ; Derivatives thereof

- C08J 2307/00** **Characterised by the use of natural rubber**
- C08J 2307/02 . Latex

- C08J 2309/00** **Characterised by the use of homopolymers or copolymers of conjugated diene hydrocarbons**
- C08J 2309/02 . Copolymers with acrylonitrile
- C08J 2309/04 . . Latex
- C08J 2309/06 . Copolymers with styrene
- C08J 2309/08 . . Latex
- C08J 2309/10 . Latex ([C08J 2309/04](#) , [C08J 2309/08](#) take precedence)

- C08J 2311/00** **Characterised by the use of homopolymers or copolymers of chloroprene**
- C08J 2311/02 . Latex

- C08J 2313/00** **Characterised by the use of rubbers containing carboxyl groups**

| | |
|---------------------|---|
| C08J 2313/02 | . Latex |
| C08J 2315/00 | Characterised by the use of rubber derivatives (C08J 2311/00 , C08J 2313/00 takes precedence) |
| C08J 2315/02 | . Rubber derivatives containing halogen |
| C08J 2317/00 | Characterised by the use of reclaimed rubber |
| C08J 2319/00 | Characterised by the use of rubbers not provided for in groups C08J 2307/00 to C08J 2317/00 |
| C08J 2319/02 | . Latex |
| C08J 2321/00 | Characterised by the use of unspecified rubbers |
| C08J 2321/02 | . Latex |
| C08J 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 |
| C08J 2323/02 | . not modified by chemical after treatment |
| C08J 2323/04 | .. Homopolymers or copolymers of ethene |
| C08J 2323/06 | ... Polyethene |
| C08J 2323/08 | ... Copolymers of ethene (C08J 2323/16 takes precedence) |
| C08J 2323/10 | .. Homopolymers or copolymers of propene |
| C08J 2323/12 | ... Polypropene |
| C08J 2323/14 | ... Copolymers of propene (C08J 2323/16 takes precedence) |
| C08J 2323/16 | .. Ethene-propene or ethene-propene-diene copolymers |
| C08J 2323/18 | .. Homopolymers or copolymers of hydrocarbons having four or more carbon atoms |
| C08J 2323/20 | ... having four to nine carbon atoms |
| C08J 2323/22 | Copolymers of isobutene ; butyl rubber |
| C08J 2323/24 | ... having ten or more carbon atoms |
| C08J 2323/26 | . modified by chemical after-treatment |
| C08J 2323/28 | .. by reaction with halogens or halogen-containing compounds (C08J 2323/32 takes precedence) |
| C08J 2323/30 | .. by oxidation |
| C08J 2323/32 | .. by reaction with phosphorus- or sulfur-containing compounds |
| C08J 2323/34 | ... by chlorosulfonation |
| C08J 2323/36 | .. by reaction with nitrogen-containing compounds, e.g. by nitration |
| C08J 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 carbocyclic ring ;
Derivatives of such polymers**

- C08J 2325/02 . Homopolymers or copolymers of hydrocarbons
- C08J 2325/04 .. Homopolymers or copolymers of styrene
- C08J 2325/06 ... Polystyrene
- C08J 2325/08 ... Copolymers of styrene ([C08J 2329/08](#) , [C08J 2335/06](#) , [C08J 2355/02](#) take precedence)
- C08J 2325/10 with conjugated dienes
- C08J 2325/12 with unsaturated nitriles
- C08J 2325/14 with unsaturated esters
- C08J 2325/16 .. Homopolymers or copolymers of alkyl-substituted styrenes

- C08J 2325/18 . Homopolymers or copolymers of aromatic monomers containing elements other than carbon and hydrogen

C08J 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

- C08J 2327/02 . not modified by chemical after-treatment
- C08J 2327/04 .. containing chlorine atoms
- C08J 2327/06 ... Homopolymers or copolymers of vinyl chloride
- C08J 2327/08 ... Homopolymers or copolymers of vinylidene chloride
- C08J 2327/10 .. containing bromine or iodine atoms
- C08J 2327/12 .. containing fluorine atoms
- C08J 2327/14 ... Homopolymers or copolymers of vinyl fluoride
- C08J 2327/16 ... Homopolymers or copolymers of vinylidene fluoride
- C08J 2327/18 ... Homopolymers or copolymers of tetrafluoroethylene
- C08J 2327/20 ... Homopolymers or copolymers of hexafluoropropene

- C08J 2327/22 . modified by chemical after-treatment
- C08J 2327/24 .. halogenated

C08J 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, aldehydo, ketonic, acetal, or ketal radical ; Hydrolysed polymers of esters of unsaturated alcohols with saturated carboxylic acids ; Derivatives of such polymer

- C08J 2329/02 . Homopolymers or copolymers of unsaturated alcohols ([C08J 2329/14](#) takes precedence)
- C08J 2329/04 .. Polyvinyl alcohol ; Partially hydrolysed homopolymers or copolymers of esters of unsaturated alcohols with saturated carboxylic acids
- C08J 2329/06 .. Copolymers of allyl alcohol

- C08J 2329/08 . . . with vinyl aromatic monomers
- C08J 2329/10 . Homopolymers or copolymers of unsaturated ethers ([C08J 2335/08](#) takes precedence)
- C08J 2329/12 . Homopolymers or copolymers of unsaturated ketones
- C08J 2329/14 . Homopolymers or copolymers of acetals or ketals obtained by polymerisation of unsaturated acetals or ketals or by after-treatment of polymers of unsaturated alcohols

- C08J 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 M09J 329/00](#))**
- C08J 2331/02 . Characterised by the use of homopolymers or copolymers of esters of monocarboxylic acids
- C08J 2331/04 . . Homopolymers or copolymers of vinyl acetate
- C08J 2331/06 . Homopolymers or copolymers of esters of polycarboxylic acids
- C08J 2331/08 . . of phthalic acid

- C08J 2333/00** **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 carboxyl radical, or of salts, anhydrides, esters, amides, imides, or nitriles thereof ; Derivatives of such polymers.**
- C08J 2333/02 . Homopolymers or copolymers of acids ; Metal or ammonium salts thereof
- C08J 2333/04 . esters
- C08J 2333/06 . . of esters containing only carbon, hydrogen, and oxygen, the oxygen atom being present only as part of the carboxyl radical
- C08J 2333/08 . . . Homopolymers or copolymers of acrylic acid esters
- C08J 2333/10 . . . Homopolymers or copolymers of methacrylic acid esters
- C08J 2333/12 Homopolymers or copolymers of methyl methacrylate
- C08J 2333/14 . . of esters containing halogen, nitrogen, sulfur, or oxygen atoms in addition to the carboxy oxygen
- C08J 2333/16 . . . Homopolymers or copolymers of esters containing halogen atoms
- C08J 2333/18 . Homopolymers or copolymers of nitriles
- C08J 2333/20 . . Homopolymers or copolymers of acrylonitrile ([C08J 2355/02](#) takes precedence)
- C08J 2333/22 . . Homopolymers or copolymers of nitriles containing four or more carbon atoms
- C08J 2333/24 . Homopolymers or copolymers of amides or imides
- C08J 2333/26 . . Homopolymers or copolymers of acrylamide or methacrylamide

- C08J 2335/00** **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 2335/02
 - . Characterised by the use of homopolymers or copolymers of esters ([C08J 2335/06](#) , [C08J 2335/08](#) take precedence)
- C08J 2335/04
 - . Homopolymers or copolymers of nitriles ([C08J 2335/06](#) , [C08J 2335/08](#) take precedence)
- C08J 2335/06
 - . Copolymers with vinyl aromatic monomers
- C08J 2335/08
 - . Copolymers with vinyl ethers
- C08J 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 (of cyclic esters of polyfunctional acids [C08J 2331/00](#) ; of cyclic anhydrides of unsaturated acids [C08J 2335/00](#)) ; Derivatives of such polymers
- C08J 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
- C08J 2339/02
 - . Homopolymers or copolymers of vinylamine
- C08J 2339/04
 - . Homopolymers or copolymers of monomers containing heterocyclic rings having nitrogen as ring member
- C08J 2339/06
 - .. Homopolymers or copolymers of N-vinyl-pyrrolidones
- C08J 2339/08
 - .. Homopolymers or copolymers of vinyl-pyridine
- C08J 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
- C08J 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, alcoholates, see the parent compounds)
- C08J 2343/02
 - . Homopolymers or copolymers of monomers containing phosphorus
- C08J 2343/04
 - . Homopolymers or copolymers of monomers containing silicon
- C08J 2345/00**

Characterised by the use of homopolymers or copolymers of compounds having no unsaturated aliphatic radicals in side chain, and having one or more carbon-to-carbon double bonds in a carbocyclic or in a heterocyclic ring system ;

Derivatives of such polymers (of cyclic anhydrides or imides [C08J 2335/00](#) ; of cyclic esters of polyfunctional acids [C08J 2331/00](#))

- [C08J 2345/02](#) . of coumarone-indene polymers

- [C08J 2347/00](#) **Characterised by the use 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 ; Derivatives of such polymers** ([C08J 2345/00](#) takes precedence; of conjugated diene rubbers [C08J 2309/00](#) to [C08J 2321/00](#))

- [C08J 2349/00](#) **Characterised by the use of homopolymers or copolymers of compounds having one or more carbon-to-carbon triple bonds ; Derivatives of such polymers**

- [C08J 2351/00](#) **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 2355/02](#)) ; **Derivatives of such polymers**

- [C08J 2351/02](#) . grafted on to polysaccharides

- [C08J 2351/04](#) . grafted on to rubbers

- [C08J 2351/06](#) . grafted on to homopolymers or copolymers of aliphatic hydrocarbons containing only one carbon-to-carbon double bond

- [C08J 2351/08](#) . grafted on to macromolecular compounds obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds

- [C08J 2351/10](#) . grafted on to inorganic materials

- [C08J 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](#) to [C08J 2353/00](#)

- [C08J 2353/02](#) . of vinyl aromatic monomers and conjugated dienes

- [C08J 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](#) to [C08J 2353/00](#)

- [C08J 2355/02](#) . Acrylonitrile-Butadiene-Styrene (ABS) polymers

- [C08J 2355/04](#) . Polyadducts obtained by the diene synthesis

- [C08J 2357/00](#) **Characterised by the use of unspecified polymers obtained by reactions only involving carbon-to-carbon unsaturated bonds**

- [C08J 2357/02](#) . Copolymers of mineral oil hydrocarbons

- [C08J 2357/04](#) . Copolymers in which only the monomer in minority is defined

- C08J 2357/06 . Homopolymers or copolymers containing elements other than carbon and hydrogen
- C08J 2357/08 . . containing halogen atoms
- C08J 2357/10 . . containing oxygen atoms
- C08J 2357/12 . . containing nitrogen atoms

- C08J 2359/00 Characterised by the use of polyacetals containing polyoxymethylene sequences only**

- C08J 2359/02 . Copolyoxymethylenes

- C08J 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**

- C08J 2361/02 . Condensation polymers of aldehydes or ketones only

- C08J 2361/04 . Condensation polymers of aldehydes or ketones with phenols only
- C08J 2361/06 . . of aldehydes with phenols
- C08J 2361/08 . . . with monohydric phenols
- C08J 2361/10 Phenol-formaldehyde condensates
- C08J 2361/12 . . . with polyhydric phenols
- C08J 2361/14 . . . Modified phenol-aldehyde condensates
- C08J 2361/16 . . of ketones with phenols

- C08J 2361/18 . Condensation polymers of aldehydes or ketones with aromatic hydrocarbons or their halogen derivatives only

- C08J 2361/20 . Condensation polymers of aldehydes or ketones with only compounds containing hydrogen attached to nitrogen (with amino phenols [C08J 2361/04](#))
- C08J 2361/22 . . of aldehydes with acyclic or carbocyclic compounds
- C08J 2361/24 . . . with urea or thiourea
- C08J 2361/26 . . of aldehydes with heterocyclic compounds
- C08J 2361/28 . . . with melamine
- C08J 2361/30 . . of aldehydes with heterocyclic and acyclic or carbocyclic compounds
- C08J 2361/32 . . Modified amine-aldehyde condensateS

- C08J 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](#)

- C08J 2363/00 Characterised by the use of epoxy resins ; Derivatives of epoxy resins**

- C08J 2363/02 . Polyglycidyl ethers of bis-phenols

- C08J 2363/04 . Epoxynovolacs

- C08J 2363/06 . Triglycidylisocyanurates

- C08J 2363/08 . Epoxidised polymerised polyenes
- C08J 2363/10 . Epoxy resins modified by unsaturated compounds
- C08J 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](#) to [C08J 2357/00](#) , [C08J 2361/00](#) take precedence) ; Derivatives of such polymers**
- C08J 2365/02 . Polyphenylenes
- C08J 2365/04 . Polyxylylenes
- C08J 2367/00** **Characterised by the use of polyesters obtained by reactions forming a carboxylic ester link in the main chain (of polyester-amides [C08J 2377/12](#) ; of polyester-imides [C08J 2379/08](#)) ; Derivatives of such polymers**
- C08J 2367/02 . Polyesters derived from dicarboxylic acids and dihydroxy compounds; ([C08J 2367/06](#) takes precedence)
- C08J 2367/03 . . the dicarboxylic acids and dihydroxy compounds having the hydroxy and the carboxyl groups directly linked to aromatic rings
- C08J 2367/04 . Polyesters derived from hydroxy carboxylic acids, e.g. lactones ([C08J 2367/06](#) takes precedence)
- C08J 2367/06 . Unsaturated polyesters
- C08J 2367/07 . . having terminal carbon-to-carbon unsaturated bonds
- C08J 2367/08 . Polyesters modified with higher fatty oils or their acids, or with resins or resin acids
- C08J 2369/00** **Characterised by the use of polycarbonates ; Derivatives of polycarbonates**
- C08J 2371/00** **Characterised by the use of polyethers obtained by reactions forming an ether link in the main chain (of polyacetals [C08J 2359/00](#) ; of epoxy resins [C08J 2363/00](#) ; of polythioether-ethers [C08J 2381/02](#) ; of polyethersulfones [C08J 2381/06](#)) ; Derivatives of such polymers**
- C08J 2371/02 . Polyalkylene oxides
- C08J 2371/03 . . Polyepihalohydrins
- C08J 2371/08 . Polyethers derived from hydroxy compounds or from their metallic derivatives ([C08J 2371/02](#) takes precedence)
- C08J 2371/10 . . from phenols
- C08J 2371/12 . . . Polyphenylene oxides
- C08J 2371/14 . . Furfuryl alcohol polymers
- C08J 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](#) to [C08J 2371/00](#) ; Derivatives of such polymers**

- C08J 2373/02 . Polyanhydrides
- C08J 2375/00 Characterised by the use of polyureas or polyurethanes ; Derivatives of such polymers**
- C08J 2375/02 . Polyureas
- C08J 2375/04 . Polyurethanes
- C08J 2375/06 . . from polyesters
- C08J 2375/08 . . from polyethers
- C08J 2375/10 . . from polyacetals
- C08J 2375/12 . . from compounds containing nitrogen and active hydrogen, the nitrogen atom not being part of an isocyanate group
- C08J 2375/14 . . Polyurethanes having carbon-to-carbon unsaturated bonds
- C08J 2375/16 . . . having terminal carbon-to-carbon unsaturated bonds
- C08J 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**
- C08J 2377/02 . Polyamides derived from omega-amino carboxylic acids or from lactams thereof ([C08J 2377/10](#) takes precedence)
- C08J 2377/04 . Polyamides derived from alpha-amino carboxylic acids ([C08J 2377/10](#) takes precedence)
- C08J 2377/06 . Polyamides derived from polyamines and polycarboxylic acids ([C08J 2377/10](#) takes precedence)
- C08J 2377/08 . . from polyamines and polymerised unsaturated fatty acids
- C08J 2377/10 . Polyamides derived from aromatically bound amino and carboxyl groups of amino carboxylic acids or of polyamines and polycarboxylic acids
- C08J 2377/12 . Polyester-amides
- C08J 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](#) to [C08J 2377/00](#)**
- C08J 2379/02 . Polyamines
- C08J 2379/04 . Polycondensates having nitrogen-containing heterocyclic rings in the main chain ; Polyhydrazides ; Polyamide acids or similar polyimide precursors
- C08J 2379/06 . . Polyhydrazides ; Polytriazoles ; Polyamino-triazoles ; Polyoxadiazoles
- C08J 2379/08 . . Polyimides ; Polyester-imides ; Polyamide-imides ; Polyamide acids or similar polyimide precursors
- C08J 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

C08J 2381/02 . Polythioethers ; Polythioether-ethers

C08J 2381/04 . Polysulfides

C08J 2381/06 . Polysulfones ; Polyethersulfones

C08J 2381/08 . Polysulfonates

C08J 2381/10 . Polysulfonamides ; Polysulfonimides

C08J 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

C08J 2383/02 . Polysilicates

C08J 2383/04 . Polysiloxanes

C08J 2383/05 . . containing silicon bound to hydrogen

C08J 2383/06 . . containing silicon bound to oxygen-containing groups ([C08J 2383/12](#) takes precedence)

C08J 2383/07 . . containing silicon bound to unsaturated aliphatic groups

C08J 2383/08 . . containing silicon bound to organic groups containing atoms other than carbon, hydrogen, and oxygen

C08J 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](#))

C08J 2383/12 . . containing polyether sequences

C08J 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)

C08J 2383/16 . in which all the silicon atoms are connected by linkages other than oxygen atoms

C08J 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

C08J 2385/02 . containing phosphorus

C08J 2385/04 . containing boron

C08J 2387/00 Characterised by the use of unspecified macromolecular compounds, obtained otherwise than by polymerisation reactions only involving unsaturated carbon-to-carbon bonds

C08J 2389/00 Characterised by the use of proteins ; Derivatives thereof

- C08J 2389/02 . Casein-aldehyde condensates
- C08J 2389/04 . Products derived from waste materials, e.g. horn, hoof or hair
- C08J 2389/06 . . derived from leather or skin

C08J 2391/00 Characterised by the use of oils, fats or waxes ; Derivatives thereof

- C08J 2391/02 . Vulcanised oils, e.g. factice
- C08J 2391/04 . Linoxyn
- C08J 2391/06 . Waxes
- C08J 2391/08 . . Mineral waxes

C08J 2393/00 Characterised by the use of natural resins ; Derivatives thereof (of polysaccharides [C08J 2301/00](#) to [C08J 2305/00](#) ; of natural rubber [C08J 2317/00](#))

- C08J 2393/02 . Shellac
- C08J 2393/04 . Rosin

C08J 2395/00 Bituminous materials, e.g. asphalt, tar or pitch**C08J 2397/00** Characterised by the use of lignin-containing materials (of polysaccharides [C08J 2301/00](#) to [C08J 2305/00](#))

- C08J 2397/02 . Lignocellulosic material, e.g. wood, straw or bagasse

C08J 2399/00 Characterised by the use of natural macromolecular compounds or of derivatives thereof not provided for in groups [C08J 2301/00](#) to [C08J 2307/00](#) or [C08J 2389/00](#) to [C08J 2397/00](#)**Guidance heading:****C08J 2400/00** Characterised by the use of unspecified polymers

- C08J 2400/10 . Polymers characterised by the presence of specified groups, e.g. terminal or pendant functional groups
- C08J 2400/102 . . containing halogen atoms
- C08J 2400/104 . . containing oxygen atoms
- C08J 2400/105 . . . containing carboxyl groups
- C08J 2400/106 . . containing nitrogen atoms

- C08J 2400/108 . . containing hydrolysable silane groups
- C08J 2400/12 . Polymers characterised by physical features, e.g. anisotropy, viscosity or electrical conductivity
- C08J 2400/14 . Water soluble or water swellable polymers, e.g. aqueous gels
- C08J 2400/16 . Biodegradable polymers
- C08J 2400/20 . Polymers characterized by their physical structure
- C08J 2400/202 . . Dendritic macromolecules, e.g. dendrimers or hyperbranched polymers
- C08J 2400/204 . . Supramolecular materials
- C08J 2400/206 . . Star polymers
- C08J 2400/208 . . Interpenetrating networks (IPN)
- C08J 2400/21 . . Polyrotaxanes ; Polycatenanes
- C08J 2400/22 . Thermoplastic resins
- C08J 2400/24 . Thermosetting resins
- C08J 2400/26 . Elastomers
- C08J 2400/30 . Polymeric waste or recycled polymer

Guidance heading: Characterizing additional polymers used in a working-up process

C08J 2401/00 Characterised by the use of cellulose, modified cellulose or cellulose derivatives

- C08J 2401/02 . Cellulose ; Modified cellulose
- C08J 2401/04 . . Oxycellulose ; Hydrocellulose
- C08J 2401/06 . . Cellulose hydrate
- C08J 2401/08 . Cellulose derivatives
- C08J 2401/10 . . Esters of organic acids
- C08J 2401/12 . . . Cellulose acetate
- C08J 2401/14 . . Mixed esters
- C08J 2401/16 . . Esters of inorganic acids
- C08J 2401/18 . . . Cellulose nitrate
- C08J 2401/20 . . Esters of both organic acids and inorganic acids
- C08J 2401/22 . . Cellulose xanthate
- C08J 2401/24 . . . Viscose
- C08J 2401/26 . . Cellulose ethers
- C08J 2401/28 . . . Alkyl ethers
- C08J 2401/30 . . . Aryl ethers ; Aralkyl ethers
- C08J 2401/32 . . Cellulose ether-esters

C08J 2403/00 Characterised by the use of starch, amylose or amylopectin or of their derivatives

or degradation products

- C08J 2403/02 . Starch ; Degradation products thereof, e.g. dextrin
- C08J 2403/04 . Starch derivatives
- C08J 2403/06 . . Esters
- C08J 2403/08 . . Ethers
- C08J 2403/10 . . Oxidised starch
- C08J 2403/12 . Amylose ; Amylopectin ; Degradation products thereof
- C08J 2403/14 . Amylose derivatives ; Amylopectin derivatives
- C08J 2403/16 . . Esters
- C08J 2403/18 . . Ethers
- C08J 2403/20 . . Oxidised amylose ; Oxidised amylopectin

C08J 2405/00 **Characterised by the use of polysaccharides or of their derivatives not provided for in groups [C08J 2401/00](#) or [C08J 2403/00](#)**

- C08J 2405/02 . Dextran ; Derivatives thereof
- C08J 2405/04 . Alginic acid ; Derivatives thereof
- C08J 2405/06 . Pectin ; Derivatives thereof
- C08J 2405/08 . Chitin ; Chondroitin sulfate ; Hyaluronic acid ; Derivatives thereof
- C08J 2405/10 . Heparin ; Derivatives thereof
- C08J 2405/12 . Agar-agar ; Derivatives thereof
- C08J 2405/14 . Hemicellulose ; Derivatives thereof
- C08J 2405/16 . Cyclodextrin ; Derivatives thereof

C08J 2407/00 **Characterised by the use of natural rubber**

- C08J 2407/02 . Latex

C08J 2409/00 **Characterised by the use of homopolymers or copolymers of conjugated diene hydrocarbons**

- C08J 2409/02 . Copolymers with acrylonitrile
- C08J 2409/04 . . Latex
- C08J 2409/06 . Copolymers with styrene

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| C08J 2409/08 | . . Latex |
| C08J 2409/10 | . Latex (C08J 2409/04 , C08J 2409/08 take precedence) |
| C08J 2411/00 | Characterised by the use of homopolymers or copolymers of chloroprene |
| C08J 2411/02 | . Latex |
| C08J 2413/00 | Characterised by the use of rubbers containing carboxyl groups |
| C08J 2413/02 | . Latex |
| C08J 2415/00 | Characterised by the use of rubber derivatives (C08J 2411/00 , C08J 2413/00 takes precedence) |
| C08J 2415/02 | . Rubber derivatives containing halogen |
| C08J 2417/00 | Characterised by the use of reclaimed rubber |
| C08J 2419/00 | Characterised by the use of rubbers not provided for in groups C08J 2407/00 to C08J 2417/00 |
| C08J 2419/02 | . Latex |
| C08J 2421/00 | Characterised by the use of unspecified rubbers |
| C08J 2421/02 | . Latex |
| C08J 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 |
| C08J 2423/02 | . not modified by chemical after treatment |
| C08J 2423/04 | . . Homopolymers or copolymers of ethene |
| C08J 2423/06 | . . . Polyethene |
| C08J 2423/08 | . . . Copolymers of ethene (C08J 2423/16 takes precedence) |
| C08J 2423/10 | . . Homopolymers or copolymers of propene |
| C08J 2423/12 | . . . Polypropene |
| C08J 2423/14 | . . . Copolymers of propene (C08J 2423/16 takes precedence) |
| C08J 2423/16 | . . Ethene-propene or ethene-propene-diene copolymers |
| C08J 2423/18 | . . Homopolymers or copolymers of hydrocarbons having four or more carbon atoms |
| C08J 2423/20 | . . . having four to nine carbon atoms |
| C08J 2423/22 | Copolymers of isobutene ; butyl rubber |
| C08J 2423/24 | . . . having ten or more carbon atoms |

- C08J 2423/26 . modified by chemical after-treatment
- C08J 2423/28 . . by reaction with halogens or halogen-containing compounds ([C08J 2423/32 takes precedence](#))
- C08J 2423/30 . . by oxidation
- C08J 2423/32 . . by reaction with phosphorus- or sulfur-containing compounds
- C08J 2423/34 . . . by chlorosulfonation
- C08J 2423/36 . . by reaction with nitrogen-containing compounds, e.g. by nitration

- C08J 2425/00** **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 carbocyclic ring ; Derivatives of such polymers**

- C08J 2425/02 . Homopolymers or copolymers of hydrocarbons
- C08J 2425/04 . . Homopolymers or copolymers of styrene
- C08J 2425/06 . . . Polystyrene
- C08J 2425/08 . . . Copolymers of styrene ([C08J 2429/08](#) , [C08J 2435/06](#) , [C08J 2455/02 take precedence](#))
- C08J 2425/10 with conjugated dienes
- C08J 2425/12 with unsaturated nitriles
- C08J 2425/14 . . . with unsaturated esters
- C08J 2425/16 . . Homopolymers or copolymers of alkyl-substituted styrenes

- C08J 2425/18 . Homopolymers or copolymers of aromatic monomers containing elements other than carbon and hydrogen

- C08J 2427/00** **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**

- C08J 2427/02 . not modified by chemical after-treatment
- C08J 2427/04 . . containing chlorine atoms
- C08J 2427/06 . . . Homopolymers or copolymers of vinyl chloride
- C08J 2427/08 . . . Homopolymers or copolymers of vinylidene chloride
- C08J 2427/10 . . containing bromine or iodine atoms
- C08J 2427/12 . . containing fluorine atoms
- C08J 2427/14 . . . Homopolymers or copolymers of vinyl fluoride
- C08J 2427/16 . . . Homopolymers or copolymers of vinylidene fluoride
- C08J 2427/18 . . . Homopolymers or copolymers of tetrafluoroethylene
- C08J 2427/20 . . . Homopolymers or copolymers of hexafluoropropene

- C08J 2427/22 . modified by chemical after-treatment
- C08J 2427/24 . . halogenated

- C08J 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, aldehydo, ketonic, acetal, or ketal radical ; Hydrolysed polymers of esters of unsaturated alcohols with saturated carboxylic acids ; Derivatives of such polymer

- C08J 2429/02 . Homopolymers or copolymers of unsaturated alcohols ([C08J 2429/14 takes precedence](#))
- C08J 2429/04 . . Polyvinyl alcohol ; Partially hydrolysed homopolymers or copolymers of esters of unsaturated alcohols with saturated carboxylic acids
- C08J 2429/06 . . Copolymers of allyl alcohol
- C08J 2429/08 . . . with vinyl aromatic monomers
- C08J 2429/10 . Homopolymers or copolymers of unsaturated ethers ([C08J 2435/08 takes precedence](#))
- C08J 2429/12 . Homopolymers or copolymers of unsaturated ketones
- C08J 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

- C08J 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 carbonic acid, or of a haloformic acid ([of hydrolysed polymers C08J 2429/00](#))**
- C08J 2431/02 . Characterised by the use of homopolymers or copolymers of esters of monocarboxylic acids
- C08J 2431/04 . . Homopolymers or copolymers of vinyl acetate
- C08J 2431/06 . Homopolymers or copolymers of esters of polycarboxylic acids
- C08J 2431/08 . . of phthalic acid

- C08J 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 carboxyl radical, or of salts, anhydrides, esters, amides, imides, or nitriles thereof ; Derivatives of such polymers**
- C08J 2433/02 . Homopolymers or copolymers of acids ; Metal or ammonium salts thereof
- C08J 2433/04 . esters
- C08J 2433/06 . . of esters containing only carbon, hydrogen, and oxygen, the oxygen atom being present only as part of the carboxyl radical
- C08J 2433/08 . . . Homopolymers or copolymers of acrylic acid esters
- C08J 2433/10 . . . Homopolymers or copolymers of methacrylic acid esters
- C08J 2433/12 Homopolymers or copolymers of methyl methacrylate
- C08J 2433/14 . . of esters containing halogen, nitrogen, sulfur, or oxygen atoms in addition to the carboxy oxygen
- C08J 2433/16 . . . Homopolymers or copolymers of esters containing halogen atoms

- C08J 2433/18 . Homopolymers or copolymers of nitriles
- C08J 2433/20 . . Homopolymers or copolymers of acrylonitrile ([C08J 2455/02](#) takes precedence)
- C08J 2433/22 . . Homopolymers or copolymers of nitriles containing four or more carbon atoms

- C08J 2433/24 . Homopolymers or copolymers of amides or imides
- C08J 2433/26 . . Homopolymers or copolymers of acrylamide or methacrylamide

- C08J 2435/00** **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 2435/02 . Characterised by the use of homopolymers or copolymers of esters ([C08J 2435/06](#) , [C08J 2435/08](#) take precedence)
- C08J 2435/04 . Homopolymers or copolymers of nitriles ([C08J 2435/06](#) , [C08J 2435/08](#) take precedence)
- C08J 2435/06 . Copolymers with vinyl aromatic monomers
- C08J 2435/08 . Copolymers with vinyl ethers

- C08J 2437/00** **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 (of cyclic esters of polyfunctional acids [C08J 2431/00](#) ; of cyclic anhydrides of unsaturated acids [C08J 2435/00](#)) ; Derivatives of such polymers**

- C08J 2439/00** **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**

- C08J 2439/02 . Homopolymers or copolymers of vinylamine
- C08J 2439/04 . Homopolymers or copolymers of monomers containing heterocyclic rings having nitrogen as ring member
- C08J 2439/06 . . Homopolymers or copolymers of N-vinyl-pyrrolidones
- C08J 2439/08 . . Homopolymers or copolymers of vinyl-pyridine

- C08J 2441/00** **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**

- C08J 2443/00** **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, alcoholates, see the parent compounds)

C08J 2443/02 . Homopolymers or copolymers of monomers containing phosphorus

C08J 2443/04 . Homopolymers or copolymers of monomers containing silicon

C08J 2445/00 **Characterised by the use of homopolymers or copolymers of compounds having no unsaturated aliphatic radicals in side chain, and having one or more carbon-to-carbon double bonds in a carbocyclic or in a heterocyclic ring system ; Derivatives of such polymers (of cyclic anhydrides or imides [C08J 2435/00](#) ; of cyclic esters of polyfunctional acids [C08J 2431/00](#))**

C08J 2445/02 . of coumarone-indene polymers

C08J 2447/00 **Characterised by the use 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 ; Derivatives of such polymers ([C08J 2445/00](#) takes precedence; of conjugated diene rubbers [C08J 2409/00](#) to [C08J 2421/00](#))**

C08J 2449/00 **Characterised by the use of homopolymers or copolymers of compounds having one or more carbon-to-carbon triple 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 on to polysaccharides

C08J 2451/04 . grafted on to rubbers

C08J 2451/06 . grafted on to homopolymers or copolymers of aliphatic hydrocarbons containing only one carbon-to-carbon double bond

C08J 2451/08 . grafted on to macromolecular compounds obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds

C08J 2451/10 . grafted on 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](#) to [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](#) to [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
- C08J 2457/12 . . containing nitrogen atoms
- C08J 2459/00 Characterised by the use of polyacetals containing polyoxymethylene sequences only**
- C08J 2459/02 . Copolyoxymethylenes
- C08J 2461/00 Characterised by the use of condensation polymers of aldehydes or ketones (with polyalcohols [C08J 2459/00](#) ; with polynitriles [C08J 2477/00](#)) ; Derivatives of such polymers**
- C08J 2461/02 . Condensation polymers of aldehydes or ketones only
- C08J 2461/04 . Condensation polymers of aldehydes or ketones with phenols only
- C08J 2461/06 . . of aldehydes with phenols
- C08J 2461/08 . . . with monohydric phenols
- C08J 2461/10 Phenol-formaldehyde condensates
- C08J 2461/12 . . . with polyhydric phenols
- C08J 2461/14 . . . Modified phenol-aldehyde condensates
- C08J 2461/16 . . of ketones with phenols
- C08J 2461/18 . Condensation polymers of aldehydes or ketones with aromatic hydrocarbons or their halogen derivatives only
- C08J 2461/20 . Condensation polymers of aldehydes or ketones with only compounds containing hydrogen attached to nitrogen (with amino phenols [C08J 2461/04](#))
- C08J 2461/22 . . of aldehydes with acyclic or carbocyclic compounds
- C08J 2461/24 . . . with urea or thiourea
- C08J 2461/26 . . of aldehydes with heterocyclic compounds
- C08J 2461/28 . . . with melamine
- C08J 2461/30 . . of aldehydes with heterocyclic and acyclic or carbocyclic compounds
- C08J 2461/32 . . Modified amine-aldehyde condensates

- C08J 2461/34 . 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](#)
- C08J 2463/00 Characterised by the use of epoxy resins ; Derivatives of epoxy resins**
- C08J 2463/02 . Polyglycidyl ethers of bis-phenols
- C08J 2463/04 . Epoxynovolacs
- C08J 2463/06 . Triglycidylisocyanurates
- C08J 2463/08 . Epoxidised polymerised polyenes
- C08J 2463/10 . Epoxy resins modified by unsaturated compounds
- C08J 2465/00 Characterised by the use of macromolecular compounds obtained by reactions forming a carbon-to-carbon link in the main chain ([C08J 2407/00](#) to [C08J 2457/00](#) , [C08J 2461/00](#) take precedence) ; Derivatives of such polymers**
- C08J 2465/02 . Polyphenylenes
- C08J 2465/04 . Polyxylylenes
- C08J 2467/00 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 polyester-imides [C08J 2479/08](#)) ; Derivatives of such polymers**
- C08J 2467/02 . Polyesters derived from dicarboxylic acids and dihydroxy compounds ([C08J 2467/06](#) takes precedence)
- C08J 2467/03 . . the dicarboxylic acids and dihydroxy compounds having the hydroxy and the carboxyl groups directly linked to aromatic rings
- C08J 2467/04 . Polyesters derived from hydroxy carboxylic acids, e.g. lactones ([C08J 2467/06](#) takes precedence)
- C08J 2467/06 . Unsaturated polyesters
- C08J 2467/07 . . having terminal carbon-to-carbon unsaturated bonds
- C08J 2467/08 . Polyesters modified with higher fatty oils or their acids, or with resins or resin acids
- C08J 2469/00 Characterised by the use of polycarbonates ; Derivatives of polycarbonates**
- C08J 2471/00 Characterised by the use of polyethers 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**
- C08J 2471/02 . Polyalkylene oxides

- C08J 2471/03 . . Polyepihalohydrins
- C08J 2471/08 . Polyethers derived from hydroxy compounds or from their metallic derivatives ([C08J 2471/02 takes precedence](#))
- C08J 2471/10 . . from phenols
- C08J 2471/12 . . . Polyphenylene oxides
- C08J 2471/14 . . Furfuryl alcohol polymers

- C08J 2473/00** **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 2459/00](#) to [C08J 2471/00](#) ; Derivatives of such polymers**

- C08J 2473/02 . Polyanhydrides

- C08J 2475/00** **Characterised by the use of polyureas or polyurethanes ; Derivatives of such polymers**

- C08J 2475/02 . Polyureas
- C08J 2475/04 . Polyurethanes
- C08J 2475/06 . . from polyesters
- C08J 2475/08 . . from polyethers
- C08J 2475/10 . . from polyacetals
- C08J 2475/12 . . from compounds containing nitrogen and active hydrogen, the nitrogen atom not being part of an isocyanate group
- C08J 2475/14 . . Polyurethanes having carbon-to-carbon unsaturated bonds
- C08J 2475/16 . . . having terminal carbon-to-carbon unsaturated bonds

- C08J 2477/00** **Characterised by the use of polyamides 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**

- C08J 2477/02 . Polyamides derived from omega-amino carboxylic acids or from lactams thereof ([C08J 2477/10 takes precedence](#))
- C08J 2477/04 . Polyamides derived from alpha-amino carboxylic acids ([C08J 2477/10 takes precedence](#))
- C08J 2477/06 . Polyamides derived from polyamines and polycarboxylic acids ([C08J 2477/10 takes precedence](#))
- C08J 2477/08 . . from polyamines and polymerised unsaturated fatty acids
- C08J 2477/10 . Polyamides derived from aromatically bound amino and carboxyl groups of amino carboxylic acids or of polyamines and polycarboxylic acids
- C08J 2477/12 . Polyester-amides

- C08J 2479/00** **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 2461/00](#) to [C08J 2477/00](#)

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| C08J 2479/02 | <ul style="list-style-type: none"> . Polyamines |
| C08J 2479/04 | <ul style="list-style-type: none"> . Polycondensates having nitrogen-containing heterocyclic rings in the main chain ; Polyhydrazides ; Polyamide acids or similar polyimide precursors |
| C08J 2479/06 | <ul style="list-style-type: none"> .. Polyhydrazides ; Polytriazoles ; Polyamino-triazoles ; Polyoxadiazoles |
| C08J 2479/08 | <ul style="list-style-type: none"> .. Polyimides ; Polyester-imides ; Polyamide-imides ; Polyamide acids or similar polyimide precursors |
| C08J 2481/00 | <p>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</p> |
| C08J 2481/02 | <ul style="list-style-type: none"> . Polythioethers ; Polythioether-ethers |
| C08J 2481/04 | <ul style="list-style-type: none"> . Polysulfides |
| C08J 2481/06 | <ul style="list-style-type: none"> . Polysulfones ; Polyethersulfones |
| C08J 2481/08 | <ul style="list-style-type: none"> . Polysulfonates |
| C08J 2481/10 | <ul style="list-style-type: none"> . Polysulfonamides ; Polysulfonimides |
| C08J 2483/00 | <p>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</p> |
| C08J 2483/02 | <ul style="list-style-type: none"> . Polysilicates |
| C08J 2483/04 | <ul style="list-style-type: none"> . Polysiloxanes |
| C08J 2483/05 | <ul style="list-style-type: none"> .. containing silicon bound to hydrogen |
| C08J 2483/06 | <ul style="list-style-type: none"> .. containing silicon bound to oxygen-containing groups (C08J 2483/12 takes precedence) |
| C08J 2483/07 | <ul style="list-style-type: none"> .. containing silicon bound to unsaturated aliphatic groups |
| C08J 2483/08 | <ul style="list-style-type: none"> .. containing silicon bound to organic groups containing atoms other than carbon, hydrogen, and oxygen |
| C08J 2483/10 | <ul style="list-style-type: none"> . 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) |
| C08J 2483/12 | <ul style="list-style-type: none"> .. containing polyether sequences |
| C08J 2483/14 | <ul style="list-style-type: none"> . in which at least two but not all the silicon atoms are connected by linkages other than oxygen atoms (C08J 2483/10 takes precedence) |
| C08J 2483/16 | <ul style="list-style-type: none"> . in which all the silicon atoms are connected by linkages other than oxygen atoms |

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| C08J 2485/00 | 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 |
| C08J 2485/02 | . containing phosphorus |
| C08J 2485/04 | . containing boron |
| C08J 2487/00 | Characterised by the use of unspecified macromolecular compounds, obtained otherwise than by polymerisation reactions only involving unsaturated carbon-to-carbon bonds |
| C08J 2489/00 | Characterised by the use of proteins ; Derivatives thereof |
| C08J 2489/02 | . Casein-aldehyde condensates |
| C08J 2489/04 | . Products derived from waste materials, e.g. horn, hoof or hair |
| C08J 2489/06 | . . derived from leather or skin |
| C08J 2491/00 | Characterised by the use of oils, fats or waxes ; Derivatives thereof |
| C08J 2491/02 | . Vulcanised oils, e.g. factice |
| C08J 2491/04 | . Linoxyn |
| C08J 2491/06 | . Waxes |
| C08J 2491/08 | . . Mineral waxes |
| C08J 2493/00 | Characterised by the use of natural resins ; Derivatives thereof (of polysaccharides C08J 2401/00 to C08J 2405/00 ; of natural rubber C08J 2417/00) |
| C08J 2493/02 | . Shellac |
| C08J 2493/04 | . Rosin |
| C08J 2495/00 | Bituminous materials, e.g. asphalt, tar or pitch |
| C08J 2497/00 | Characterised by the use of lignin-containing materials (of polysaccharides C08J 2401/00 to C08J 2405/00) |
| C08J 2497/02 | . Lignocellulosic material, e.g. wood, straw or bagasse |
| C08J 2499/00 | Characterised by the use of natural macromolecular compounds or of derivatives thereof not provided for in groups C08J 2401/00 to C08J 2407/00 or C08J 2489/00 to C08J 2497/00 |