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.
   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 2300/00 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 7/047 and C08J 2323/06 and C08J 2475/04
   • Use of ABS as an additive for foamed polycrylamide: C08J 9/0061 and C08J 2333/26 and C08J 2455/02
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 7/047: the polymeric substrate to be coated.
• C08J 9/0061: the polymeric component in majority in a multicomponents foamable blend.
3. Group C08J 2400/00 was introduced on January 1st, 2012. Patent documents are continuously being reclassified. As a consequence, documents published before 01/01/2012, and to which C08J 2400/00 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 - 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.

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
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
3/02 Making solutions, dispersions or latices 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 3/20])
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)
5/121 [by heating]
5/122 [using low molecular chemically inert solvents, swelling or softening agents]
5/124 [using adhesives based on a macromolecular component (adhesive compositions per se C09J 4/00; C09J 10/00 - C09J 201/00)]
5/125 [Adhesives in organic diluents]
5/127 [Aqueous adhesives]
5/128 [Adhesives without diluent]
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]

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

5/22 . Films, membranes, or diaphragms [ion-exchange in general, B01J 39/18 - B01J 39/22, B01J 41/12 - B01J 41/16, B01J 45/00, B01J 45/06, B01J 47/12 - B01J 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. 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 5/2287.

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

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 (coating compositions per se C09D 4/00, C09D 101/00 - C09D 201/00)

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

7/045 . . . . [with at least one layer of inorganic material and at least one layer of a composition containing a polymer binder]

7/047 . . . . [with only one layer of a composition containing a polymer binder (with more layers C08J 7/042)]

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

7/123 . . . . [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)]

7/126 . . . . [Halogenation]

7/14 . . . with acids, their salts or anhydrides

7/16 . . . with polymerisable compounds

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]
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

9/16 . Making expandable particles
9/18 . by impregnating polymer particles with the blowing agent
9/20 . by suspension polymerisation in the presence of the blowing agent
9/22 . After-treatment of expandable particles; Forming foamed products
9/224 . Surface treatment
9/228 . Forming foamed products
9/232 . . by sintering expandable particles
9/236 . . using binding agents
9/24 . by surface fusion and bonding of particles to form voids, e.g. sintering (of expandable particles C08J 9/232)
9/26 . by elimination of a solid phase from a macromolecular composition or article, e.g. leaching out
9/28 . by elimination of a liquid phase from a macromolecular composition or article, e.g. drying of coagulum
9/283 . . [a discontinuous liquid phase emulsified in a continuous macromolecular phase]
9/286 . . [the liquid phase being a solvent for the monomers but not for the resulting macromolecular composition, i.e. macroporous or macrooterical polymers]
9/30 . by mixing gases into liquid compositions or plastisols, e.g. frothing with air
9/32 . from compositions containing microballoons, e.g. syntactic foams (making microballoons B01J 13/02)
9/33 . Agglomerating foam fragments, e.g. waste foam
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
9/35 . Composite foams, i.e. continuous macromolecular foams containing discontinuous cellular particles or fragments
9/36 . After-treatment
9/365 . . [Coating]
9/38 . . Destruction of cell membranes
9/40 . . Impregnation
9/405 . . . [with polymerisable compounds]
9/42 . . . with macromolecular compounds
11/00 Recovery or working-up of waste materials
(polygonisation processes involving purification or recycling of waste polymers or their depolymerisation products C08B, C08C, C08F, C08G, C08H; mechanical treatments B29)
11/02 . of solvents, plasticisers or unreacted monomers
11/04 . of polymers
11/06 . . without chemical reactions
Foams characterised by the foaming process

- 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 polyesters, C07C 51/09, C07C 63/26; depolymerisation of polynamides 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
- by treatment with inorganic material (C08J 11/14 takes precedence)
- by treatment with organic material
- by treatment with hydrocarbons or halogenated hydrocarbons
- by treatment with organic oxygen-containing compounds
- containing hydroxy groups
- containing carboxylic acid groups, their anhydrides or esters
- by treatment with organic compounds containing nitrogen, sulfur or phosphorus

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 foamyable composition, e.g. premixing the polystyrol 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 foamyable composition
- 2201/026 Crosslinking before of after foaming
- 2201/028 Foaming by preparing of a high internal phase emulsion
- 2201/03 Extrusion of the foamyable 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 2201/0547

- 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 the liquid phase being organic
- 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
- 2203/13 Saturated hydrocarbons, e.g. butane; Unspecified hydrocarbons
- 2203/14 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
Characterizing the main polymer used in a working-up process

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

- Polymers characterised by the presence of specified groups, e.g. terminal or pendant functional groups
  - 2300/102  containing halogen atoms
  - 2300/104  containing oxygen atoms
  - 2300/105  containing carboxyl groups
  - 2300/106  containing nitrogen atoms
  - 2300/108  containing hydrolysable silane groups

- 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
  - 2300/202  Dendritic macromolecules, e.g. dendrimers or hyperbranched polymers
  - 2300/204  Supramolecular materials
  - 2300/206  Star polymers
  - 2300/208  Interpenetrating networks [IPN]
  - 2300/21  Polyoxyxanes; Polyoxycatenanes
  - 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

- Cellulose; Modified cellulose
  - 2301/02
  - 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 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

- Elastomers

- Oxidised amylose; Oxidised amylopectin
- Ethers
- Mixed esters
- Esters of organic acids
- Esters of inorganic acids
- Cellulose nitrate
- Esters of both organic and inorganic acids
- Cellulose xanthate
- Viscose
- Cellulose ethers
- Alkyl ethers
- Aryl ethers; Aralkyl ethers
- Cellulose ether-esters

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

- Starch; Degradation products thereof, e.g. dextrin
- Starch derivatives
- Esters
- Ethers
- Oxidised starch
- Amylose; Amylopectin; Degradation products thereof
- Amylose derivatives; Amylopectin derivatives
- Esters
- Ethers
- Oxidised amylose; Oxidised amylopectin

---

**C08J**

2203/164  Perhalogenated unsaturated hydrocarbons, e.g. F₂C=CF₂
2203/166  Unsaturated hydrocarbons containing oxygen and halogen atoms, e.g. F₂C-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.

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 foamble composition
2205/022  Hydrogel, i.e. a gel containing an aqueous composition
2205/024  Organogel, i.e. a gel containing an organic composition
2205/026  Aerogel, i.e. a supercritically dried gel
2205/028  Xerogel, i.e. an air dried gel
2205/04  characterised by the foam pores
2205/042  Nanopores, i.e. the average diameter being smaller than 0,1 micrometer
2205/044  Micropores, i.e. average diameter being between 0,1 micrometer and 0,1 millimeter
2205/046  Unimodal pore distribution
2205/048  Bimodal pore distribution, e.g. micropores and nanopores coexisting in the same foam
2205/05  Open cells, i.e. more than 50% of the pores are open
2205/052  Closed cells, i.e. more than 50% of the pores are closed
2205/06  Flexible foams
2205/08  Semi-flexible foams
2205/10  Rigid foams

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

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 . Dextran; Derivatives thereof
2305/04 . Alginic 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 . Cyclodextrin; 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
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 take precedence)

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 . . . Polylethene
2323/08 . . . Copolymers of ethene (C08J 2323/16 takes precedence)
2323/10 . . . Homopolymers or copolymers of propene
2323/12 . . . Polyp propane
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 nitratation

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
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)
Characterizing the main polymer used in a working-up process

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 carboxylic acid, or of a haliformic acid (of hydrolysed polymers C08J 2329/00)

2331/02 . Characterised by the use of monomers 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

2331/08 . . . of phthalic acid

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

2333/02 . Homopolymers or copolymers of acids; Metal or ammonium salts thereof

2333/04 . esters

2333/06 . . . of esters containing only carbon, hydrogen, and oxygen, the oxygen atom being present only as part of the carboxyl radical

2333/08 . . . Homopolymers or copolymers of acrylic acid esters

2333/10 . . . Homopolymers or copolymers of methacrylic acid esters

2333/12 . . . . Homopolymers or copolymers of methyl methacrylate

2333/14 . . . of esters containing halogen, nitrogen, sulfur, or oxygen atoms in addition to the carboxy oxygen atoms

2333/16 . . . Homopolymers or copolymers of esters containing halogen atoms

2333/18 . Homopolymers or copolymers of nitriles

2333/20 . . . Homopolymers or copolymers of acrylonitrile (C08J 2355/02 takes precedence)

2333/22 . . . Homopolymers or copolymers of nitriles containing four or more carbon atoms

2333/24 . Homopolymers or copolymers of amides or imides

2333/26 . . . Homopolymers or copolymers of acrylamide or methacrylamide

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

2335/02 . Characterised by the use of homopolymers or copolymers of esters (C08J 2335/06, C08J 2335/08 take precedence)

2335/04 . Homopolymers or copolymers of nitriles (C08J 2335/06, C08J 2335/08 take precedence)

2335/06 . Copolymers with vinyl aromatic monomers

2335/08 . Copolymers with vinyl ethers

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

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-vinylpyrrolidones

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, alcoholates, 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

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 2355/00; of cyclic esters of polynuclear acids C08J 2331/00)

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 - C08J 2321/00)

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

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 2355/00; Derivatives of such polymers

2351/02  . grafted on to polysaccharides

2351/04  . grafted on to rubbers

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 polyacets containing polyoxymethylene sequences only

2359/02  . Copolyoxymethylenes

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 carboxyclic 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 carboxyclic 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  . Epoxynovolacs

2363/06  . Triglycidylsicylocanurates

2363/08  . Epoxidised polymerised polynenes

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  . Polynenylenes

2365/04  . Polyylylenes

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

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
Characterizing the main polymer used in a working-up process

2367/07 . . having terminal carbon-to-carbon unsaturated bonds
2367/08 . Polymers 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 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
2371/02 . Polyalkylene oxides
2371/03 . . Polyepiphahydrins
2371/08 . Polyethers derived from hydroxy compounds or from their metal 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

2375/00 Characterised by the use of polyureas or polyurethanes; Derivatives of such polymers
2375/02 . Polyureas
2375/04 . Polyurethanes
2375/06 . . from polyesters
2375/08 . . from polyethers
2375/10 . . from polyacetals
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-amo amino carboxylic acids or from lactams thereof (C08J 2377/10 takes precedence)
2377/04 . Polyamides derived from alpha-amo amino carboxylic acids (C08J 2377/10 takes precedence)
2377/06 . Polyamides derived from polyamines and polycarboxylic acids (C08J 2377/10 takes precedence)
2377/08 . . from polyamines and polymerised unsaturated fatty acids
2377/10 . Polyamides derived from aromaticlly bound amino and carboxyl groups of amino carboxylic acids or of polyamines and polycarboxylic acids
2377/12 . Polyamide-arnides

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 . Polyamines
2379/04 . Polycondensates having nitrogen-containing heterocyclic rings in the main chain; Polyhydrazides; 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; Polysulfonimides

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 polymerth 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
Characterizing the main polymer used in a working-up process

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
Linoxyx
Waxes
Mineral waxes

Characterised by the use of natural resins; Derivatives thereof (of polysaccharides C08J 2301/00 - C08J 2305/00; of natural rubber C08J 2317/00)

Shellac
Rosin

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

Characterised by the use of lignin-containing materials (of polysaccharides C08J 2301/00 - C08J 2305/00)

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 2301/00 - C08J 2307/00 or C08J 2389/00 - C08J 2397/00

Characterising additional polymers used in a working-up process

Characterised by the use of unspecified polymers

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

containing halogen atoms
containing oxygen atoms
containing carboxyl groups
containing nitrogen atoms
containing hydrolysable silane groups

Polymers characterised by physical features, e.g. anisotropy, viscosity or electrical conductivity
Water soluble or water swellable polymers, e.g. aqueous gels

Biodegradable polymers

Polymers characterised by their physical structure

Dendritic macromolecules, e.g. dendrimers or hyperbranched polymers

Supramolecular materials
Star polymers
Interpenetrating networks [IPN]

Polymotaxanes; Polycatenanes
Thermoplastic resins
Thermosetting resins
Elastomers
Polymeric waste or recycled polymer

Characterised by the use of cellulose, modified cellulose or cellulose derivatives

Cellulose; Modified cellulose
Oxycellulose; Hydrocellulose
Cellulose hydrate
Cellulose derivatives
Esters of organic acids
Cellulose acetate
Mixed esters
Esters of inorganic acids
Cellulose nitrate
Esters of both organic acids and inorganic acids
Cellulose xanthate
Viscose
Cellulose ethers
Alkyl ethers
Aryl ethers; Aralkyl ethers
Cellulose ether-esters

Characterised by the use of starch, amyllose or amylopectin or of their derivatives or degradation products

Starch; Degradation products thereof, e.g. dextrin
Starch derivatives
Esters
Ethers
Oxidised starch
Amylose; Amylopectin; Degradation products thereof
Amylose derivatives; Amylopectin derivatives
Ethers
Oxidised amylose; Oxidised amylopectin

Characterised by the use of polysaccharides or of their derivatives not provided for in groups C08J 2401/00 or C08J 2403/00

Dextran; Derivatives thereof
Alginic acid; Derivatives thereof
Pectin; Derivatives thereof
Chitin; Chondroitin sulfate; Hyaluronic acid; Derivatives thereof
Heparin; Derivatives thereof
Agar-agar; Derivatives thereof
Hemicellulose; Derivatives thereof
Cyclodextrin; Derivatives thereof

Characterised by the use of natural rubber

Latex

Characterised by the use of homopolymers or copolymers of conjugated diene hydrocarbons

Copolymers with acrylonitrile
Latex
Copolymers with styrene
Latex
Copolymers containing carboxyl groups

Characterised by the use of rubbers containing carboxyl groups

Copolymers with conjugated diene hydrocarbons

Characterised by the use of rubbers containing carboxyl groups
Characterizing additional polymers used in a working-up process

Characterised by the use of rubber derivatives

- Characterised by the use of rubber derivatives containing halogen

Characterised by the use of reclaimed rubber

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

Characterised by the use of unspecified rubbers

- Latex

Characterised by the use of homopolymers or copolymers of unsaturated aliphatic hydrocarbons having only one carbon-to-carbon double bond; Derivatives of such polymers

- Characterised by the use of homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, each having one carbon-to-carbon double bond, and at least one being terminated by a halogen; Derivatives of such polymers

- 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

Characterised by the use of unspecified rubbers

- Latex

Characterised by the use of rubber derivatives containing halogen

- not modified by chemical after treatment
- containing chlorine atoms
- containing Bromine or iodine atoms
- containing fluorine atoms
- containing Silicone
- containing free radicals
- Characterised by the use of unspecified rubbers
- halogenated

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

- Homopolymers or copolymers of unsaturated hydrocarbons having four or more carbon atoms
- having four to nine carbon atoms
- having ten or more carbon atoms
- modified by chemical after-treatment
- by reaction with halogens or halogen-containing compounds
- by oxidation
- by reaction with phosphorus- or sulfur-containing compounds
- by chlorosulfonation
- by reaction with nitrogen-containing compounds, e.g. by nitration
- by reaction with unsaturated acyl derivatives
- with unsaturated acyl derivatives
- with unsaturated alkyl derivatives
- with unsaturated esters
- with unsaturated nitriles
- with unsaturated nitrites
Characterizing additional polymers used in a working-up process

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 at least one being terminated by only one carboxyl 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 carboxyl 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

2433/20 . . Homopolymers or copolymers of acrylonitrile (C08J 2455/02 takes precedence)

2433/22 . Homopolymers or copolymers of nitriles containing four or more carbon atoms

2433/24 . Homopolymers or copolymers of amides or imides

2433/26 . . Homopolymers or copolymers of acrylamide or methacrylamide

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

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

2435/04 . Homopolymers or copolymers of nitriles (C08J 2435/06, C08J 2435/08 take precedence)

2435/06 . Copolymers with vinyl aromatic monomers

2435/08 . Copolymers with vinyl ethers

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

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

2439/02 . Homopolymers or copolymers of vinylamine

2439/04 . Homopolymers or copolymers of monomers containing heterocyclic rings having nitrogen as ring member

2439/06 . . Homopolymers or copolymers of N-vinyl-pyrorolides

2439/08 . . Homopolymers or copolymers of vinyl-pyridine

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

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)

2443/02 . Homopolymers or copolymers of monomers containing phosphorus

2443/04 . Homopolymers or copolymers of monomers containing silicon

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)

2445/02 . of coumarone-indene polymers

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 take precedence; of conjugated diene rubbers C08J 2409/00 - C08J 2421/00)

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

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

2451/02 . grafted to polysaccharides

2451/04 . grafted to rubbers

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

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

2451/10 . grafted to inorganic materials
Characterizing additional polymers used in a working-up process

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

2453/02 . of vinyl aromatic monomers and conjugated dienes

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

2455/02 . Acrylonitrile-Butadiene-Styrene [ABS] polymers

2455/04 . Polyadducts obtained by the diene synthesis

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

2457/02 . Copolymers of mineral oil hydrocarbons

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

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

2457/08 . containing halogen atoms

2457/10 . containing oxygen atoms

2457/12 . containing nitrogen atoms

2459/00 Characterised by the use of polyacets containing polyoxymethylene sequences only

2459/02 . Copolyoxymethylenes

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

2461/02 . Condensation polymers of aldehydes or ketones only

2461/04 . Condensation polymers of aldehydes or ketones with phenols only

2461/06 . . . of aldehydes with phenols

2461/08 . . . with monohydric phenols

2461/10 . . . . Phenol-formaldehyde condensates

2461/12 . . . . with polyhydric phenols

2461/14 . . . Modified phenol-aldehyde condensates

2461/16 . . . of ketones with phenols

2461/18 . Condensation polymers of aldehydes or ketones with aromatic hydrocarbons or their halogen derivatives only

2461/20 . Condensation polymers of aldehydes or ketones with only compounds containing hydrogen attached to nitrogen (with amino phenols C08J 2461/04)

2461/22 . . . of aldehydes with acyclic or carboxyclic compounds

2461/24 . . . with urea or thiourea

2461/26 . . . of aldehydes with heterocyclic compounds

2461/28 . . . with melamine

2461/30 . . . of aldehydes with heterocyclic and acyclic or carboxyclic compounds

2461/32 . . . Modified amine-aldehyde condensates

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

2463/00 Characterised by the use of epoxy resins; Derivatives of epoxy resins

2463/02 . Polyglycidyl ethers of bis-phenols

2463/04 . Epoxynovolacs

2463/06 . Triglycidylisocyanurates

2463/08 . Epoxidised polymerised polyenes

2463/10 . Epoxy resins modified by unsaturated compounds

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 - C08J 2457/00, C08J 2461/00 take precedence); Derivatives of such polymers

2465/02 . Polyphenylenes

2465/04 . Polyxylylenes

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

2467/02 . Polyesters derived from dicarboxylic acids and dihydroxy compounds (C08J 2467/06 takes precedence)

2467/03 . the dicarboxylic acids and dihydroxy compounds having the hydroxy and the carbonyl groups directly linked to aromatic rings

2467/04 . Polyesters derived from hydroxy carboxylic acids, e.g. lactones (C08J 2467/06 takes precedence)

2467/06 . Unsaturated polyesters

2467/07 . . having terminal carbon-to-carbon unsaturated bonds

2467/08 . Polyesters modified with higher fatty oils or their acids, or with resins or resin acids

2469/00 Characterised by the use of polycarbonates; Derivatives of polycarbonates

2471/00 Characterised by the use of polyethers obtained by reactions forming an ether link in the main chain (of polycetals C08J 2459/00; of polyesters C08J 2463/00; of polythioether-ethers C08J 2467/02; of polyethersulfones C08J 2481/06); Derivatives of such polymers

2471/02 . Polyalkylene oxides

2471/03 . Polyepihalohydrins

2471/08 . Polymers derived from hydroxy compounds or from their metallic derivatives (C08J 2471/02 takes precedence)

2471/10 . . from phenols

2471/12 . . Polyphenylene oxides

2471/14 . . Furfuryl alcohol polymers

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 - C08J 2471/00; Derivatives of such polymers

2473/02 . Polyetherhydrides

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

2475/02 . Polyureas

2475/04 . Polyurethanes

2475/06 . from polyesters

2475/08 . from polyethers

2475/10 . from polycetals
Characterising additional polymers used in a working-up process

C08J 2477/00

Characterised by the use of polymides 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

2477/02

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

2477/04

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

2477/06

. Polymides derived from polyamines and polycarboxylic acids (C08J 2477/10 takes precedence)

2477/08

. from polyamines and polymerised unsaturated fatty acids

2477/10

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

2477/12

. Polyester-amides

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 - C08J 2477/00

2479/02

. Polymines

2479/04

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

2479/06

. Polyhydrazides; Polytriazoles; Polyamino-triazoles; Polyoxadiazoles

2479/08

. Polymides; Polyester-imides; Polyamide-imides; Polyamide acids or similar polyimide precursors

2481/00

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

2481/02

. Polytioethers; Polythioether-ethers

2481/04

. Polysulfides

2481/06

. Polysulfones; Polylethersulfones

2481/08

. Polysulfonates

2481/10

. Polysulfonamides; Polysulfonimides

2483/00

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

2483/02

. Polysilicates

2483/04

. Polysiloxanes

2483/06

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

2483/07

. containing silicon bound to unsaturated aliphatic groups

2483/08

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

2483/10

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

2483/12

. containing polyether sequences

2483/14

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

2483/16

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

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

2485/02

. containing phosphorus

2485/04

. containing boron

2487/00

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

2489/00

Characterised by the use of proteins; Derivatives thereof

2489/02

. Casein-aldehyde condensates

2489/04

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

2489/06

. derived from leather or skin

2491/00

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

2491/02

. Vulcanised oils, e.g. factice

2491/04

. Linoxyn

2491/06

. Waxes

2491/08

. Mineral waxes

2493/00

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

2493/02

. Shellac

2493/04

. Rosin

2495/00

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

2497/00

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

2497/02

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

2499/00

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