CPC  COOPERATIVE PATENT CLASSIFICATION

C  CHEMISTRY; METALLURGY
   (NOTES omitted)

CHEMISTRY

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

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

NOTES
1. This subclass covers processes, not covered by subclasses C08B - C08H, for treating polymers.
   In this subclass, in the absence of an indication to the contrary, classification is made in the last appropriate place.
2. When classifying in subclass C08J, the treatment of specific polymers is indicated using indexing codes chosen from C08J 2300/00 or subgroups thereof.
   Example:
   • Preparation of particles of polystyrene by impregnation of the particles with the blowing agent: C08J 9/18 and C08J 2325/06.
3. The use of a polymeric component in minority, e.g. masterbatch, coating, impregnating agent or thin binder is indicated using indexing codes chosen from C08J 2400/00 or subgroups thereof.
   Examples:
   • Use of PMMA as masterbatch in a polystyrene composition: C08J 3/226 and C08J 2325/06 and C08J 2433/10
   • Bonding of polystyrene by heating: C08J 5/121 and C08J 2327/06
   • Coating of a polyethylene substrate with a polyurethane coating: C08J 7/0427 and C08J 2323/06 and C08J 2475/04
   • Use of ABS as an additive for foamed polycrlylamide: C08J 9/0061 and C08J 2333/26 and C08J 2455/04
4. In the following subgroups, the codes of C08J 2300/00 - C08J 2399/00 are used to specify:
   • C08J 3/226: the polymeric material to which the masterbatch carrier is added.
   • C08J 7/0427: the polymeric substrate to be coated.
   • C08J 9/0061: the polymeric component in majority in a multicomponents foamable blend.
5. 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.
6. 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 7/0427: 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 2050/14

CPC - 2020.08
2. In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

3/00 Processes of treating or compounding macromolecular substances

3/005 [Processes for mixing polymers]
3/02 . Making solutions, dispersions or lattices by other methods than by solution, emulsion or suspension polymerisation techniques
3/03 . . in aqueous media
3/05 . . from solid polymers
3/07 . . from polymer solutions
3/075 . . Macromolecular gels
3/09 . . in organic liquids
3/091 . . [characterised by the chemical constitution of the organic liquid]
3/092 . . . . [Hydrocarbons]
3/093 . . . . [Halogenated hydrocarbons]
3/095 . . . . [Oxygen containing compounds]
3/096 . . . . [Nitrogen containing compounds]
3/097 . . . . [Sulfur containing compounds]
3/098 . . . . [Other compounds]
3/11 . . from solid polymers
3/12 . Powdering or granulating { [preparation of active ingredients, e.g. medical preparations in form of capsules A61K 9/51; making granules B29B 9/00]}
3/122 . . . . [Pulverisation by spraying]
3/124 . . . . [Treatment for improving the free-flowing characteristics (agglomerates, granulates or microbeads 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, C08K; compounding C08J 3/201)
3/241 . . . . [Preventing premature crosslinking by physical separation of components, e.g. encapsulation (of other ingredients C08K 9/00)]
3/242 . . . . [Applying crosslinking or accelerating agent onto compounding ingredients such as fillers, reinforcements]
3/243 . . . . [Two or more independent types of crosslinking for one or more polymers]
3/244 . . . . [Stepwise homogeneous crosslinking of one polymer with one crosslinking system, e.g. partial curing]
3/245 . . . . [Differential crosslinking of one polymer with one crosslinking type, e.g. surface crosslinking]
3/246 . . . . [Intercrosslinking of at least two polymers]
3/247 . . . . [Heating methods]
3/248 . . . . [Measuring crosslinking reactions]
3/26 . . . of latex
3/28 . . Treatment by wave energy or particle radiation

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

5/005 . [Reinforced macromolecular compounds with nanosized materials, e.g. nanoparticles, nanofibres, nanotubes, nanowires, nanorods or nanolayered materials (use of ingredients characterised by shape C08K 7/00; nanotechnology for materials and surface science B82Y 30/00)]

5/02 . Direct processing of dispersions, e.g. latex, to articles
5/04 . Reinforcing macromolecular compounds with loose or coherent fibrous material (after-treatment of threads during manufacture D01F; finishing of textiles D06M)
5/041 . . . . [with metal fibres]
5/042 . . . . [with carbon fibres]
5/043 . . . . [with glass fibres]
5/044 . . . . [with other inorganic fibres]
5/045 . . . . [with vegetable or animal fibrous material]
5/046 . . . . [with synthetic macromolecular fibrous material]

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

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

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

5/22 . Films, membranes, or diaphragms (ion-exchange in general, B01J 39/20; use of macromolecular compounds as anion exchangers B01J 41/14).

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. SO₃H, 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).

5/2245 . . . . (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).

5/2293 . . . (Impregnating materials with prepolymer which can be polymerised in situ, e.g. manufacture of prepregs).

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

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

7/04 . Coating.

WARNING

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

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

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

WARNING

Group C08J 7/042 is impacted by reclassification into groups C08J 7/043 - C08J 7/056.

All groups listed in this Warning should be considered in order to perform a complete search.
[with at least one layer of inorganic material and at least one layer of a composition containing a polymer binder]  

**WARNING**  
Group C08J 7/0423 is impacted by reclassification into groups C08J 7/043 - C08J 7/056.  
All groups listed in this Warning should be considered in order to perform a complete search.

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

**WARNING**  
Group C08J 7/0427 is impacted by reclassification into groups C08J 7/043 - C08J 7/056.  
All groups listed in this Warning should be considered in order to perform a complete search.

Improving the adhesiveness of the coatings per se, e.g. forming primers (adhesives in the form of films or foils characterised by the primer layers between the polymer carriers and the adhesives C09J 7/50)  

**WARNING**  
Group C08J 7/043 is incomplete pending reclassification of documents from groups C08J 7/04, C08J 7/042, C08J 7/0423, C08J 7/0427, C08J 7/06, and C08J 7/065.  
All groups listed in this Warning should be considered in order to perform a complete search.

Forming conductive coatings; Forming coatings having anti-static properties  

**WARNING**  
Group C08J 7/043 is incomplete pending reclassification of documents from groups C08J 7/04, C08J 7/042, C08J 7/0423, C08J 7/0427, C08J 7/06, and C08J 7/065.  
All groups listed in this Warning should be considered in order to perform a complete search.

Forming abrasion-resistant coatings; Forming surface-hardening coatings  

**WARNING**  
Group C08J 7/046 is incomplete pending reclassification of documents from groups C08J 7/04, C08J 7/042, C08J 7/0423, C08J 7/0427, C08J 7/06, and C08J 7/065.  
All groups listed in this Warning should be considered in order to perform a complete search.

Forming gas barrier coatings  

**WARNING**  
Group C08J 7/048 is incomplete pending reclassification of documents from groups C08J 7/04, C08J 7/042, C08J 7/0423, C08J 7/0427, C08J 7/06, and C08J 7/065.  
All groups listed in this Warning should be considered in order to perform a complete search.

Forming flame retardant coatings or fire resistant coatings  

**WARNING**  
Group C08J 7/05 is incomplete pending reclassification of documents from groups C08J 7/04, C08J 7/042, C08J 7/0423, C08J 7/0427, C08J 7/06, and C08J 7/065.  
All groups listed in this Warning should be considered in order to perform a complete search.

Forming heat-sealable coatings  

**WARNING**  
Group C08J 7/052 is incomplete pending reclassification of documents from groups C08J 7/04, C08J 7/042, C08J 7/0423, C08J 7/0427, C08J 7/06, and C08J 7/065.  
All groups listed in this Warning should be considered in order to perform a complete search.

Forming anti-misting or drip-proofing coatings  

**WARNING**  
Group C08J 7/054 is incomplete pending reclassification of documents from groups C08J 7/04, C08J 7/042, C08J 7/0423, C08J 7/0427, C08J 7/06, and C08J 7/065.  
All groups listed in this Warning should be considered in order to perform a complete search.

Forming hydrophilic coatings  

**WARNING**  
Group C08J 7/056 is incomplete pending reclassification of documents from groups C08J 7/04, C08J 7/042, C08J 7/0423, C08J 7/0427, C08J 7/06, and C08J 7/065.  
All groups listed in this Warning should be considered in order to perform a complete search.
with compositions not containing macromolecular substances

**WARNING**

Group C08J 7/06 is impacted by reclassification into groups C08J 7/043, C08J 7/044, C08J 7/046, C08J 7/048, C08J 7/05, C08J 7/052, C08J 7/054, and C08J 7/056.

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

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

**WARNING**

Group C08J 7/065 is impacted by reclassification into groups C08J 7/043, C08J 7/044, C08J 7/046, C08J 7/048, C08J 7/05, C08J 7/052, C08J 7/054, and C08J 7/056.

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

7/08 . . . [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

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

9/0004 . . . [Use of compounding ingredients, the chemical constitution of which is unknown, broadly defined, or irrelevant]
9/0009 . . . [Phase change materials]
9/0014 . . . [Use of organic additives]
9/0019 . . . [halogenated]
9/0023 . . . [containing oxygen]
9/0028 . . . [containing nitrogen]
9/0033 . . . [containing sulfur]
9/0038 . . . [containing phosphorus]
9/0042 . . . [containing silicon]
9/0047 . . . [containing boron]
9/0052 . . . [Organo-metallic compounds]
9/0057 . . . [containing antimony, arsenic, or bismuth]
9/0061 . . . [characterized by the use of several polymeric components]
9/0066 . . . [Use of inorganic compounding ingredients]
9/0071 . . . [Nanosized fillers, i.e. having at least one dimension below 100 nanometers]
9/0076 . . . [Nanofibres]
9/008 . . . [Nanoparticles]

[Use of fibrous compounding ingredients (C08J 9/0076 takes precedence)]
9/0009 . . . [Use of pretreated compounding ingredients]
9/0095 . . . [Mixtures of at least two compounding ingredients belonging to different one-dot groups]
9/02 . . . using blowing gases generated by the reacting monomers or modifying agents during the preparation or modification of macromolecules
9/04 . . . using blowing gases generated by a previously added blowing agent
9/06 . . . by a chemical blowing agent
9/065 . . . [Hydrides or carbides]
9/08 . . . developing carbon dioxide
9/10 . . . developing nitrogen, the blowing agent being a compound containing a nitrogen-to-nitrogen bond

9/101 . . . [Agents modifying the decomposition temperature]
9/102 . . . [Azo-compounds]
9/103 . . . [Azodicarbonamide]
9/104 . . . [Hydrazines; Hydrazides; Semicarbazides; Semicarbazones; Hydrazones; Derivatives thereof]
9/105 . . . . . . [containing sulfur]
9/106 . . . . . . [Azides]
9/107 . . . . . . [Nitroso compounds]
9/108 . . . . . . [in a heterocyclic ring containing at least one carbon atom]
9/12 . . . . . . by a physical blowing agent
9/122 . . . . . . [Hydrogen, oxygen, CO₂, nitrogen or noble gases]
9/125 . . . . . . [Water, e.g. hydrated salts]
9/127 . . . . . . [Mixtures of organic and inorganic blowing agents]
9/14 . . . . . . organic
9/141 . . . . . . [Hydrocarbons]
9/142 . . . . . . [Compounds containing oxygen but no halogen atom]
9/143 . . . . . . [Halogen containing compounds]
9/144 . . . . . . [containing carbon, halogen and hydrogen only]
9/145 . . . . . . . [only chlorine as halogen atoms]
9/146 . . . . . . . [only fluorine as halogen atoms]
9/147 . . . . . . . [containing carbon and halogen atoms only]
9/148 . . . . . . . [perfluorinated]
9/149 . . . . . . . [Mixtures of blowing agents covered by more than one of the groups C08J 9/141 - C08J 9/143]

**NOTE**

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

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

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
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**C08J**

- **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 macroreticular polymers)
- **9/30** . . . by mixing gases into liquid compositions or plastisols, e.g. frothing with air
- **9/32** . . . from compositions containing microbubbles, e.g. syntactic foams (making microbubbles 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

### 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)

- **11/02** . . . of solvents, plasticisers or unreacted monomers
- **11/04** . . . of polymers
- **11/06** . . . without chemical reactions
- **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)
- **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 polymers, C07C 51/09, C07C 63/26; depolymerisation of polyamides C07D 201/12; depolymerisation of rubber C08C 19/08)

### Subject matter not provided for in other groups of this subclass

#### 2201/00 Foams characterised by the foaming process

- **2201/02** . . . premixing or pre-blending a part of the components of a foamable composition, e.g. premixing the polyl with the blowing agent, surfactant and catalyst and only adding the isocyanate at the time of foaming
- **2201/03** . . . Extrusion of the foambale blend
- **2201/04** . . . Post-expanding of foam beads or sheets
- **2201/05** . . . Use of an organic, non-polymeric compound to impregnate, bind or coat a foam, e.g. fatty acid ester
- **2201/06** . . . Use of an inorganic compound to impregnate, bind or coat a foam, e.g. waterglass

**NOTE**

When the elimination is performed in several steps, only the first step is indicated using codes C08J 2201/02 - C08J 2201/0547

- **2201/042** . . . Elimination of an organic solid phase
- **2201/046** . . . containing oxygen atoms, e.g. saccharose
- **2201/0462** . . . containing halogen, nitrogen, sulphur or phosphorus atoms
- **2201/044** . . . Elimination of an inorganic solid phase
- **2201/0442** . . . the inorganic phase being a metal, its oxide or hydroxide
- **2201/0444** . . . Salts
- **2201/0446** . . . Elimination of NaCl only
- **2201/046** . . . Elimination of a polymeric phase
- **2201/0462** . . . using organic solvents
- **2201/0464** . . . using water or inorganic fluids
- **2201/048** . . . Elimination of a frozen liquid phase
Foams characterized by their expanding agents

2203/00 Foams characterized by the expanding agent
2203/02 . CO₂-releasing, e.g. NaHCO₃ and citric acid
2203/04 . N₂-releasing, ex azodicarbonamide or nitroso compound
2203/06 . CO₂, N₂ or noble gases
2203/08 . Supercritical fluid
2203/10 . Water or water-releasing compounds
2203/12 . Organic compounds only containing carbon, hydrogen and oxygen atoms, e.g. ketone or alcohol
2203/14 . Saturated hydrocarbons, e.g. butane; Unspecified hydrocarbons
2203/12 . Halogenated saturated hydrocarbons, e.g. H₂C- CF₃
2203/14 . Perhalogenated saturated hydrocarbons, e.g. F₃C-CF₃
2203/14 . Saturated hydrocarbons containing oxygen and halogen atoms, e.g. F₃C-O-CH₂-CH₂
2203/16 . Unsaturated hydrocarbons
2203/162 . Halogenated unsaturated hydrocarbons, e.g. H₂C=CF₂
2203/164 . Perhalogenated unsaturated hydrocarbons, e.g. F₂C=CF₂
2203/166 . Unsaturated hydrocarbons containing oxygen and halogen atoms, e.g. F₃C-O-CH=CH₂
2203/18 . Binary blends of expanding agents
2203/182 . of physical blowing agents, e.g. acetone and butane

NOTE
The blowing agents should be specified by using codes C08J 2203/06 - C08J 2203/166.

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

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

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

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

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

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

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

2205/00 Foams characterised by their properties
2205/02 . the finished foam itself being a gel or a gel being temporarily formed when processing the foamable composition
2205/022 . 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 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

2300/00 Characterised by the use of unspecified polymers
2300/10 . Polymers characterised by the presence of specified groups, e.g. terminal or pendant functional groups
2300/102 . containing halogen atoms
2300/104 . containing oxygen atoms
2300/105 . containing carboxyl groups
2300/106 . containing nitrogen atoms
2300/108 . containing hydrolysable silane groups
2300/12 . Polymers characterised by physical features, e.g. anisotropy, viscosity or electrical conductivity
2300/14 . Water soluble or water swellable polymers, e.g. aqueous gels
2300/16 . Biodegradable polymers
2300/20 . Polymers characterized by their physical structure
2300/202 . Dendritic macromolecules, e.g. dendrimers or hyperbranched polymers
Characterizing the main polymer used in a working-up process

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

- Cellulose; Modified cellulose
- Oxyethylcellulose; 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, 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

Characterised by the use of polysaccharides or of their derivatives not provided for in groups C08J 2301/00 - C08J 2309/00

- Dextran; Derivatives thereof
- Algicin 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
- Copolymers with styrene

Copolymers of conjugated diene hydrocarbons characterised by the use of homopolymers or copolymers of chloroprene

- Rubber derivatives containing halogen

Characterised by the use of unspecified rubbers

- Latex

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

- not modified by chemical after treatment
- Homopolymers or copolymers of ethene
- Polyethene
- Copolymers of ethene (C08J 2323/16 takes precedence)
- Homopolymers or copolymers of propene
- Polypropene
- Copolymers of propene (C08J 2323/16 takes precedence)
- Ethene-propene or ethene-propene-diene copolymers
- Homopolymers or copolymers of hydrocarbons having four or more carbon atoms
- having four to nine carbon atoms
- Copolymers of isobutene; butyl rubber
- having ten or more carbon atoms
- modified by chemical after-treatment
- by reaction with halogens or halogen-containing compounds (C08J 2323/32 takes precedence)
- by oxidation
- by reaction with phosphorus- or sulfur-containing compounds
- by chlorosulfonation
- by reaction with nitrogen-containing compounds, e.g. by nitration

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

- Homopolymers or copolymers of hydrocarbons
- Homopolymers or copolymers of styrene
- Polystyrene
- Copolymers of styrene (C08J 2329/08, C08J 2335/06, C08J 2355/02 take precedence)
- with conjugated dienes

Characterised by the use of rubbers not provided for in groups C08J 2307/00 - C08J 2317/00

- Latex

Characterised by the use of rubbers containing carboxyl groups

- Latex

Characterised by the use of reclaimed rubber

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

2325/12 . . . with unsaturated nitriles
2325/14 . . . with unsaturated esters
2325/16 . . . Homopolymers or copolymers of alkyl-substituted styrenes
2325/18 . . Homopolymers or copolymers of aromatic monomers containing elements other than carbon and hydrogen

2327/00 Characterised by the use of homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by a halogen; Derivatives of such polymers

2327/02 . . not modified by chemical after-treatment
2327/04 . . containing chlorine atoms
2327/06 . . Homopolymers or copolymers of vinyl chloride
2327/08 . . Homopolymers or copolymers of vinylidene chloride
2327/10 . . containing bromine or iodine atoms
2327/12 . . containing fluorine atoms
2327/14 . . Homopolymers or copolymers of vinyl fluoride
2327/16 . . Homopolymers or copolymers of vinylidene fluoride
2327/18 . . Homopolymers or copolymers of tetrafluoroethylene
2327/20 . . Homopolymers or copolymers of hexafluoropropene
2327/22 . . modified by chemical after-treatment
2327/24 . . halogenated

2329/00 Characterised by the use of homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by an alcohol, ether, aldehyde, ketonic, acetal, or ketal radical; Hydrolysed polymers of esters of unsaturated alcohols with saturated carboxylic acids; Derivatives of such polymer

2329/02 . . Homopolymers or copolymers of unsaturated alcohols (C08J 2329/14 takes precedence)
2329/04 . . Polyvinyl alcohol; Partially hydrolysed homopolymers or copolymers of esters of unsaturated alcohols with saturated carboxylic acids
2329/06 . . Copolymers of allyl alcohol
2329/08 . . . with vinyl aromatic monomers
2329/10 . . Homopolymers or copolymers of unsaturated ethers (C08J 2335/08 takes precedence)
2329/12 . . Homopolymers or copolymers of unsaturated ketones
2329/14 . . Homopolymers or copolymers of acetals or ketals obtained by polymerisation of unsaturated acetals 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 carboxinic acid, or of a haloformic acid (of hydrolysed polymers C08J 2329/00)

2331/02 . . Characterised by the use of omopolymers or copolymers of esters of monocarboxylic acids
2331/04 . . Homopolymers or copolymers of vinyl acetate
2331/06 . . Homopolymers or copolymers of esters of polycarboxylic acids
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
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 2335/02 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 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
Characterizing the main polymer used in a working-up process

239/00 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
   239/02 Homopolymers or copolymers of vinylamine
   239/04 Homopolymers or copolymers of monomers containing heterocyclic rings having nitrogen as ring member
   239/06 . Homopolymers or copolymers of N-vinyl-pyrolidones
   239/08 . 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

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 polyfunctional acids C08J 2331/00)
   2345/02 . of coumarone-indene polymers

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 2355/02); 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 polyacetals 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 polyesters 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 monohydidic phenols
   2361/10 . . Phenol-formaldehyde condensates
   2361/12 . . Polyhydridic phenols
   2361/14 . . Modified phenol-aldehyde condensates
   2361/16 . . of ketones with phenols
   2361/18 . Condensation polymers of aldehydes or ketones with aromatic hydrocarbons or their halogen derivatives only
   2361/20 . Condensation polymers of aldehydes or ketones with only compounds containing hydrogen attached to nitrogen (with amino phenols C08J 2361/04)
   2361/22 . of aldehydes with acyclic or carbocyclic compounds
   2361/24 . with urea or thiourea
   2361/26 . of aldehydes with heterocyclic compounds
   2361/28 . with melamine
   2361/30 . of aldehydes with heterocyclic and acyclic or carbocyclic compounds
Characterizing the main polymer used in a working-up process

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 . . Triglycidylisocyanurates
2363/08 . . Epoxidised polymerised polyenes
2363/10 . . Epoxy resins modified by unsaturated compounds

2365/00 Characterised by the use of macromolecular compounds obtained by reactions forming a carbon-to-carbon link in the main chain (C08J 2307/00 - C08J 2357/00, C08J 2361/00 take precedence); Derivatives of such polymers
2365/02 . . Polyphenylenes
2365/04 . . Polyxylylenes

2367/00 Characterised by the use of polyesters obtained by reactions forming a carboxylic ester link in the main chain (of polyester-amides C08J 2377/12; of polyamide-imides C08J 2379/08); Derivatives of such polymers
2367/02 . . Polymers 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 . . Polymers derived from hydroxy carboxylic acids, e.g. lactones (C08J 2367/06 takes precedence)
2367/06 . . Unsaturated polyesters
2367/07 . . having terminal carbon-to-carbon unsaturated bonds
2367/08 . . 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 polyesters 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 . . . Polypephalohydrins
2371/08 . . Polyesters derived from hydroxy compounds or from their metallic derivatives (C08J 2371/02 takes precedence)
2371/10 . . from phenols
2371/12 . . . Polyphenylene oxides
2371/14 . . . Furfuryl alcohol polymers

2373/00 Characterised by the use of macromolecular compounds obtained by reactions forming a linkage containing oxygen or oxygen and carbon in the main chain, not provided for in groups C08J 2359/00 - C08J 2371/00; Derivatives of such polymers
2373/02 . . Polyanhydrides

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 polyacetics
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-amino carboxylic acids or from lactams thereof (C08J 2377/10 takes precedence)
2377/04 . . Polyamides derived from alpha-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 polyamides and polymerised unsaturated fatty acids
2377/10 . . Polymides derived from aromatically bound amino and carboxyl groups of amino carboxylic acids or of polynamides and polycarboxylic acids
2377/12 . . Polyester-amides

2379/00 Characterised by the use of macromolecular compounds obtained by reactions forming in the main chain of the macromolecule a linkage containing nitrogen with or without oxygen, or carbon only, not provided for in groups C08J 2361/00 - C08J 2377/00
2379/02 . . Polynamides
2379/04 . . Polycondensates having nitrogen-containing heterocyclic rings in the main chain; Polyhydrazides; Polyamide acids or similar polyimide precursors
2379/06 . . Polyhydrazides; Polytetrazoles; Polyanimotriazoles; Polyoxadiazoles
2379/08 . . Polymides; Polyester-imides; Polyamide-imides; Polyamide acids or similar polyimide precursors

2381/00 Characterised by the use of macromolecular compounds obtained by reactions forming in the main chain of the macromolecule a linkage containing sulfur with or without nitrogen, oxygen, or carbon only; Polysulfones; Derivatives of such polymers
2381/02 . . Polythioethers; Polythioether-ethers
2381/04 . . Polysulfides
2381/06 . . Polysulfones; Polyethersulfones
2381/08 . . Polysulfonates
2381/10 . . Polysulfonamides; Polysulfonimides
Characterizing the main polymer used in a working-up process

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

**2385/00**  Characterised by the use of macromolecular compounds obtained by reactions forming in the main chain of the macromolecule a linkage containing atoms other than silicon, sulfur, nitrogen, oxygen, and carbon; Derivatives of such polymers

2385/02  .  containing phosphorus
2385/04  .  containing boron

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

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

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

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

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

**2393/00**  Characterised by the use of natural resins; Derivatives thereof (of polysaccharides C08J 2301/00 - C08J 2305/00; of natural rubber C08J 2317/00)

2393/02  .  Shellac
2393/04  .  Rosin

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

**2397/00**  Characterised by the use of lignin-containing materials (of polysaccharides C08J 2301/00 - C08J 2305/00)

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

**2399/00**  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

Characterizing additional polymers used in a working-up process

**2400/00**  Characterised by the use of unspecified polymers

2400/10  .  Polymers characterised by the presence of specified groups, e.g. terminal or pendant functional groups
2400/102  .  containing halogen atoms
2400/104  .  containing oxygen atoms
2400/105  .  containing carboxyl groups
2400/106  .  containing nitrogen atoms
2400/108  .  containing hydrolysable silane groups
2400/12  .  Polymers characterised by physical features, e.g. anisotropy, viscosity or electrical conductivity
2400/14  .  Water soluble or water swellable polymers, e.g. aqueous gels
2400/16  .  Biodegradable polymers
2400/20  .  Polymers characterized by their physical structure
2400/202  .  Dendritic macromolecules, e.g. dendrimers or hyperbranched polymers
2400/204  .  Supramolecular materials
2400/206  .  Star polymers
2400/208  .  Interpenetrating networks [IPN]
2400/21  .  Polyrotaxanes; Polycatenanes
2400/22  .  Thermoplastic resins
2400/24  .  Thermosetting resins
2400/26  .  Elastomers
2400/30  .  Polymeric waste or recycled polymer

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

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

**2403/00**  Characterised by the use of starch, amylose or amylopectin or of their derivatives or degradation products

2403/02  .  Starch; Degradation products thereof, e.g. dextrin
2403/04  .  Starch derivatives
2403/06  .  Esters
2403/08  .  Ethers
2403/10  .  Oxidised starch
2403/12  .  Amylose; Amylopectin; Degradation products thereof
Characterizing additional polymers used in a working-up process

2403/14 . Amylose derivatives; Amylopectin derivatives
2403/16 . . Esters
2403/18 . . Ethers
2403/20 . . Oxidised amylose; Oxidised amylopectin

2405/00 Characterised by the use of polysaccharides or of their derivatives not provided for in groups C08J 2417/00 or C08J 2413/00
2405/02 . Dextran; Derivatives thereof
2405/04 . Algic acid; Derivatives thereof
2405/06 . Pectin; Derivatives thereof
2405/08 . Chitin; Chondroitin sulfate; Hyaluronic acid; Derivatives thereof
2405/10 . Heparin; Derivatives thereof
2405/12 . Agar-agar; Derivatives thereof
2405/14 . Hemicellulose; Derivatives thereof
2405/16 . Cyclodextrin; Derivatives thereof

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

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

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

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

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

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

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

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

2423/18 . Homopolymers or copolymers of hydrocarbons having four or more carbon atoms
2423/20 . . having four to nine carbon atoms
2423/22 . . . Copolymers of isobutene; butyl rubber
2423/24 . . having ten or more carbon atoms
2423/26 . modified by chemical after-treatment
2423/28 . . by reaction with halogens or halogen-containing compounds (C08J 2423/32 takes precedence)
2423/30 . . by oxidation
2423/32 . . by reaction with phosphorus- or sulfur-containing compounds
2423/34 . . by chlorosulfonation
2423/36 . . by reaction with nitrogen-containing compounds, e.g. by nitration

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
2425/02 . Homopolymers or copolymers of hydrocarbons
2425/04 . . Homopolymers or copolymers of styrene
2425/06 . . . Polystyrene
2425/08 . . . Copolymers of styrene (C08J 2429/08, C08J 2435/06, C08J 2455/02 take precedence)
2425/10 . . . with conjugated dienes
2425/12 . . . with unsaturated nitriles
2425/14 . . . with unsaturated esters
2425/16 . . . Homopolymers or copolymers of alkyl-substituted styrenes
2425/18 . Homopolymers or copolymers of aromatic monomers containing elements other than carbon and hydrogen

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
2427/02 . not modified by chemical after-treatment
2427/04 . . containing chlorine atoms
2427/06 . . Homopolymers or copolymers of vinyl chloride
2427/08 . . Homopolymers or copolymers of vinylidene chloride
2427/10 . . containing bromine or iodine atoms
2427/12 . . containing fluorine atoms
2427/14 . . Homopolymers or copolymers of vinyl fluoride
2427/16 . . Homopolymers or copolymers of vinylidene fluoride
2427/18 . . Homopolymers or copolymers of tetrafluoroethylene
2427/20 . . Homopolymers or copolymers of hexafluoropropene
2427/22 . modified by chemical after-treatment
2427/24 . . halogenated
Characterizing additional polymers used in a working-up process

2431/00 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

2431/02 . Homopolymers or copolymers of unsaturated alcohols (C08J 2429/14 takes precedence)

2431/04 . Polyvinyl alcohol: Partially hydrolysed homopolymers or copolymers of esters of unsaturated alcohols with saturated carboxylic acids

2431/06 . Copolymers of allyl alcohol

2431/08 . . with vinyl aromatic monomers

2431/10 . Homopolymers or copolymers of unsaturated ethers (C08J 2435/08 takes precedence)

2431/12 . Homopolymers or copolymers of unsaturated ketones

2431/14 . Homopolymers or copolymers of acetics or ketals obtained by polymerisation of unsaturated acetics or ketals or by after-treatment of polymers of unsaturated alcohols

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 an acyloxy radical of a saturated carboxylic acid, or of a halomeric acid (of hydrolysed polymers C08J 2429/00)

2433/02 . Characterised by the use of homopolymers or copolymers of esters of monocarboxylic acids

2433/04 . . Homopolymers or copolymers of vinyl acetate

2433/06 . Homopolymers or copolymers of esters of polycarboxylic acids

2433/08 . . of phthalic acid

2433/10 . Homopolymers or copolymers of acrylic acid esters

2433/12 . . Homopolymers or copolymers of methacrylic acid esters

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

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-pyrrolidones

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)
Characterizing additional polymers used in a working-up process

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)

2457/00 . . containing nitrogen atoms

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

2459/02 . Copolyoxymethylene

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 carbocyclic 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 carbocyclic 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 2427/00 - 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 carboxyl groups directly linked to aromatic rings
Characterizing additional polymers used in a working-up process

2477/04 . Polymers derived from hydroxy carboxylic acids, e.g. lactones (C08J 2467/06 takes precedence)
2477/06 . Unsaturated polyesters
2477/08 . Polymers modified with higher fatty oils or their acids, or with resins or resin acids

2477/00 Characterised by the use of polyamides; Derivatives of polyamides

2477/10 . Polymides derived from aromatically bound amino and carboxyl groups of amino carboxylic acids or of polyanimes 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 . Polymides
2479/04 . Polycondensates having nitrogen-containing heterocyclic rings in the main chain; Polyhydrazides; Polyalamide acids or similar polyimide precursors
2479/06 . Polyhydrazides; Polytriazoles; Polyalaminotriazoles; 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 . Polystyrenethers; Polythioether-ethers
2481/04 . Polysulfides
2481/06 . Polysulfones; Polyethersulfones
2481/08 . Polysulfonates
2481/10 . Polysulfonamides; Polysulfonimidates

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 . Polysisoxanes
2483/06 . containing silicon bound to hydrogen
2483/08 . containing silicon bound to oxygen-containing groups (C08J 2483/12 takes precedence)
2483/10 . containing silicon bound to unsaturated aliphatic groups
2483/12 . containing silicon bound to organic groups containing atoms other than carbon, hydrogen, and oxygen
2483/14 . containing silicon bound to unsaturated aliphatic groups
2483/16 . containing silicon bound to organic groups containing atoms other than carbon, hydrogen, and oxygen

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
Characterizing additional polymers used in a working-up process

- Containing phosphorus
- Containing boron

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

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

Characterised by the use of oils, fats or waxes; Derivatives thereof
- Vulcanised oils, e.g. factice
- Linoxyn
- Waxes
- Mineral waxes

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

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

Characterised by the use of lignin-containing materials (of polysaccharides C08J 2401/00 - C08J 2405/00)
- Lignocellulosic material, e.g. wood, straw or bagasse

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