

# CPC COOPERATIVE PATENT CLASSIFICATION

## C CHEMISTRY; METALLURGY

(NOTES omitted)

### CHEMISTRY

**C08 ORGANIC MACROMOLECULAR COMPOUNDS; THEIR PREPARATION OR CHEMICAL WORKING-UP; COMPOSITIONS BASED THEREON** (manufacture or treatment of artificial threads, fibres, bristles or ribbons [D01](#))

**C08L COMPOSITIONS OF MACROMOLECULAR COMPOUNDS** (pesticides, herbicides [A01N](#); pharmaceuticals, cosmetics [A61K](#); explosives [C06B](#); compositions based on polymerisable monomers [C08F](#), [C08G](#); paints, inks, varnishes, dyes, polishes, adhesives [C09](#); lubricants [C10M](#); detergents [C11D](#); artificial filaments or fibres [D01F](#); textile treating compositions [D06](#))

#### NOTES

1. Compositions classified in [C08K](#) according to note 3 of [C08K](#), are not classified in [C08L](#).
2. Documents classified before 09.2003: Classification is given in the form of C-Sets. The polymer in majority is given a [C08L](#) symbol, and the minor components are characterised by Indexing Codes taken from the list below. The Indexing Codes are linked. The polymer in majority is always first in the C-set. List of [C08L](#) codes: [C08L 23/00](#), [C08L 23/26](#), [C08L 25/00](#), [C08L 27/00](#), [C08L 27/04](#), [C08L 27/12](#), [C08L 29/00](#), [C08L 31/00](#), [C08L 33/00](#), [C08L 35/00](#), [C08L 37/00](#), [C08L 51/00](#), [C08L 53/00](#), [C08L 55/02](#), [C08L 61/04](#), [C08L 61/20](#), [C08L 63/00](#), [C08L 67/00](#), [C08L 67/02](#), [C08L 67/025](#), [C08L 67/03](#), [C08L 67/04](#), [C08L 67/06](#), [C08L 67/07](#), [C08L 69/00](#), [C08L 69/005](#), [C08L 71/00](#), [C08L 75/04](#), [C08L 77/00](#), [C08L 77/08](#), [C08L 77/12](#), [C08L 79/08](#), [C08L 79/085](#), [C08L 81/00](#), [C08L 83/00](#), [C08L 85/00](#), [C08L 91/06](#), [C08L 95/00](#) or [C08L 2666/00](#) - [C08L 2666/86](#). Documents from group [C08L 23/00](#) - [C08L 23/36](#), [C08L 45/00](#) - [C08L 45/02](#) and [C08L 49/00](#) have all been reclassified following Note 3 below. An additive is classified in the last appropriate place in the list as selected for each [C08L](#) group. Examples:
  - a. A composition based on a polyamide and a graft polymer is classified in ( [C08L 77/00](#), [C08L 2666/24](#) ).
  - b. A composition based on polyvinylchloride and containing CaCO<sub>3</sub> is classified according to note 4 of [C08K](#), i.e. in ( [C08K 3/26](#), [C08L 27/06](#) ). If this composition contains also a polyamide, then the classification will be ( [C08L 27/06](#), [C08L 77/00](#), [C08K 3/26](#) ).
  - c. A composition based on a polysiloxane ( [C08L 83/04](#) ) and containing a second polysiloxane, a phenol and silica is classified in ( [C08L 83/04](#), [C08L 83/04](#), [C08L 2666/34](#), [C08L 2666/58](#) ).
3. From 01.09.2003 until April 2012: Classification is given in the form of C-Sets. The polymer in majority is given a [C08L](#) class, and the minor components are characterised by Indexing Codes taken from [C08L](#) or [C08K](#) and they are linked or unlinked. The polymer in majority is always first in the C-Set. List of [C08L](#) codes in the C-Set: [C08L 1/00](#), [C08L 81/00](#), [C08L 83/00](#), [C08L 91/06](#), [C08L 95/00](#) or [C08L 2666/02](#) - [C08L 2666/08](#), [C08L 2666/14](#) - [C08L 2666/26](#). Examples:
  - a. A blend of 60 parts polyvinylchloride ( [C08L 27/06](#) ) and 40 parts polyamide is classified in ( [C08L 27/06](#), [C08L 2666/20](#) ) and [C08L 77/00](#).
  - b. A blend of 50 parts polyvinylchloride ( [C08L 27/06](#) ) and 50 parts polyamide ( [C08L 77/00](#) ) is classified in ( [C08L 27/06](#), [C08L 2666/20](#) ) and [C08L 77/00](#), as well as in ( [C08L 77/00](#), [C08L 2666/04](#) ) and [C08L 27/06](#).
  - c. A composition based on polyvinylchloride and containing CaCO<sub>3</sub> is classified according to [N: Note 4 of [C08K](#), i.e. in ( [C08K 3/26](#), [C08L 27/06](#) ). If this composition contains also a polyamide, then the classification will be ( [C08L 27/06](#), [C08L 2666/20](#) ) and [C08K 3/26](#).
  - d. A composition based on a first polysiloxane ( [C08L 83/04](#) ) and containing a second polysiloxane, a phenol and silica is classified in ( [C08L 83/04](#), [C08L 83/04](#), [C08K 5/13](#), [C08K 3/36](#) ) and [C08L 2205/02](#).
4. From April 2012 onwards, after the notation [C08L](#), notations concerning the other constituents of the composition may be added, in the form of C-Sets. The further constituent is added with an indexing code. The indexing codes are chosen from [C08L 1/00](#) - [C08L 2555/86](#) or [C08K](#) and they may be linked or unlinked: - [C08L 1/00](#) - [C08L 101/10](#) are linked. - [C08L 2201/00](#) - [C08L 2555/86](#) are unlinked. The polymer in majority is always first in the C-Set. Examples:
  - a. A blend of 60 parts polyvinylchloride ( [C08L 27/06](#) ) and 40 parts polyamide ( [C08L 77/00](#) ) is classified in ( [C08L 27/06](#), [C08L 77/00](#) ).
  - b. A blend of 50 parts polyvinylchloride ( [C08L 27/06](#) ) and 50 parts polyamide ( [C08L 77/00](#) ) is classified in ( [C08L 27/06](#), [C08L 77/00](#) ) and ( [C08L 77/00](#), [C08L 27/06](#) ).
  - c. A composition based on polyvinylchloride and containing CaCO<sub>3</sub> is classified according to [N: Note 4 of [C08K](#), i.e. in ( [C08K 3/26](#), [C08L 27/06](#) ). If this composition contains also a polyamide, then the classification will be ( [C08L 27/06](#), [C08L 77/00](#), [C08K 3/26](#) ).
  - d. A composition based on a first polysiloxane ( [C08L 83/04](#) ) and containing a second polysiloxane, a phenol and silica is classified in ( [C08L 83/04](#), [C08L 83/00](#), [C08K 5/13](#), [C08K 3/36](#) ) and [C08L 2205/02](#).

- C08L  
(continued)
- e. A composition containing a polyamide in majority, a polyester and a polyethylene is classified in ( [C08L 77/00](#), [C08L 67/00](#), [C08L 23/06](#) ) and [C08L 2205/03](#).
  5. "Rubber" includes:
    - natural or conjugated diene rubbers;
    - rubber in general (for a specific rubber, other than a natural rubber or a conjugated diene rubber, see the group provided for compositions of such macromolecular compounds).
  6. In this subclass:
    - a. compositions are classified according to the mutual proportions by weight of only the macromolecular constituents;
    - b. compositions are classified according to the macromolecular constituent or constituents present in the highest proportion: if all these constituents are present in equal proportions the composition is classified according to each of these constituents.

**WARNING**

The following IPC groups are not in the CPC scheme. The subject matter for these IPC groups is classified in the following CPC groups:

<a href="#">C08L 61/08-C08L 61/10</a>	covered by
<a href="#">C08L 63/02</a>	covered by
<a href="#">C08L 83/05</a>	covered by
<a href="#">C08L 83/07</a>	covered by

**Compositions of polysaccharides or of their derivatives**

<b>1/00</b>	<b>Compositions of cellulose, modified cellulose or cellulose derivatives</b>
1/02	• Cellulose; Modified cellulose
1/04	• . Oxycellulose; Hydrocellulose {, e.g. microcrystalline cellulose}
1/06	• . Cellulose hydrate
1/08	• Cellulose derivatives
1/10	• . Esters of organic acids {, i.e. acylates}
1/12	• . . Cellulose acetate
1/14	• . . Mixed esters, e.g. cellulose acetate-butyrate
1/16	• . Esters of inorganic acids
1/18	• . . Cellulose nitrate {, i.e. nitrocellulose}
1/20	• . Esters of both organic acids and inorganic acids
1/22	• . Cellulose xanthate
1/24	• . . Viscose
1/26	• . Cellulose ethers
1/28	• . . Alkyl ethers
1/282	• . . . {with halogen-substituted hydrocarbon radicals}
1/284	• . . . {with hydroxylated hydrocarbon radicals}
1/286	• . . . {substituted with acid radicals, e.g. carboxymethyl cellulose [CMC] ( <a href="#">C08L 1/282</a> takes precedence)}
1/288	• . . . {substituted with nitrogen-containing radicals}
1/30	• . . Aryl ethers; Aralkyl ethers
1/32	• . Cellulose ether-esters
<b>3/00</b>	<b>Compositions of starch, amylose or amylopectin or of their derivatives or degradation products</b>
3/02	• Starch; Degradation products thereof, e.g. dextrin
3/04	• Starch derivatives {, e.g. crosslinked derivatives}
3/06	• . Esters
3/08	• . Ethers
3/10	• . Oxidised starch
3/12	• Amylose; Amylopectin; Degradation products thereof
3/14	• Amylose derivatives; Amylopectin derivatives
3/16	• . Esters
3/18	• . Ethers
3/20	• . Oxidised amylose; Oxidised amylopectin

**5/00****Compositions of polysaccharides or of their derivatives not provided for in groups [C08L 1/00](#) or [C08L 3/00](#)**

5/02	• Dextran; Derivatives thereof
5/04	• Alginic acid; Derivatives thereof
5/06	• Pectin; Derivatives thereof
5/08	• Chitin; Chondroitin sulfate; Hyaluronic acid; Derivatives thereof
5/10	• Heparin; Derivatives thereof
5/12	• {Agar or} agar-agar {, i.e. mixture of agarose and agaropectin}; Derivatives thereof
5/14	• Hemicellulose; Derivatives thereof
5/16	• Cyclodextrin; Derivatives thereof

**Compositions of rubber or of their derivatives**

<b>7/00</b>	<b>Compositions of natural rubber</b>
7/02	• Latex
<b>9/00</b>	<b>Compositions of homopolymers or copolymers of conjugated diene hydrocarbons</b>
9/02	• Copolymers with acrylonitrile
9/04	• . Latex
9/06	• Copolymers with styrene
9/08	• . Latex
9/10	• Latex ( <a href="#">C08L 9/04</a> , <a href="#">C08L 9/08</a> take precedence)
<b>11/00</b>	<b>Compositions of homopolymers or copolymers of chloroprene</b>
11/02	• Latex
<b>13/00</b>	<b>Compositions of rubbers containing carboxyl groups</b>
13/02	• Latex
<b>15/00</b>	<b>Compositions of rubber derivatives (<a href="#">C08L 11/00</a>, <a href="#">C08L 13/00</a> take precedence)</b>
15/005	• {Hydrogenated nitrile rubber}
15/02	• Rubber derivatives containing halogen
<b>17/00</b>	<b>Compositions of reclaimed rubber</b>
<b>19/00</b>	<b>Compositions of rubbers not provided for in groups <a href="#">C08L 7/00</a> - <a href="#">C08L 17/00</a></b>
19/003	• {Precrosslinked rubber; Scrap rubber; Used vulcanised rubber}

- 19/006 . {Rubber characterised by functional groups, e.g. telechelic diene polymers}
- 19/02 . Latex
- 21/00 Compositions of unspecified rubbers**
- 21/02 . Latex

**Compositions of macromolecular compounds obtained by reactions involving only carbon-to-carbon unsaturated bonds**

**NOTE**

{Groups [C08L 23/00](#) - [C08L 49/00](#) are to be interpreted in accordance with Notes 2), 3) and 4 a) following the title of subclass [C08F](#)}

- 23/00 Compositions of homopolymers or copolymers of unsaturated aliphatic hydrocarbons having only one carbon-to-carbon double bond; Compositions of derivatives of such polymers**
- 23/02 . not modified by chemical after-treatment
- 23/025 . . {Copolymer of an unspecified olefin with a monomer other than an olefin}
- 23/04 . . Homopolymers or copolymers of ethene
- 23/06 . . . Polyethylene
- 23/08 . . . Copolymers of ethene ([C08L 23/16](#) takes precedence)
- 23/0807 . . . . {Copolymers of ethene with unsaturated hydrocarbons only containing more than three carbon atoms}
- 23/0815 . . . . . {Copolymers of ethene with aliphatic 1-olefins}
- 23/0823 . . . . . {Copolymers of ethene with aliphatic cyclic olefins}
- 23/083 . . . . . {Copolymers of ethene with aliphatic polyenes, i.e. containing more than one unsaturated bond}
- 23/0838 . . . . . {Copolymers of ethene with aromatic monomers}
- 23/0846 . . . . . {Copolymers of ethene with unsaturated hydrocarbons containing other atoms than carbon or hydrogen atoms}
- 23/0853 . . . . . {Vinylacetate}
- 23/0861 . . . . . {Saponified vinylacetate}
- 23/0869 . . . . . {Acids or derivatives thereof}
- 23/0876 . . . . . {Neutralised polymers, i.e. ionomers}
- 23/0884 . . . . . {Epoxide containing esters}
- 23/0892 . . . . . {containing monomers with other atoms than carbon, hydrogen or oxygen atoms}
- 23/10 . . Homopolymers or copolymers of propene
- 23/12 . . . Polypropene
- 23/14 . . . Copolymers of propene ([C08L 23/16](#) takes precedence)
- 23/142 . . . . {at least partially crystalline copolymers of propene with other olefins}
- 23/145 . . . . {Copolymers of propene with monomers having more than one C=C double bond}
- 23/147 . . . . {Copolymers of propene with monomers containing other atoms than carbon or hydrogen atoms}
- 23/16 . . {Elastomeric} ethene-propene or ethene-propene-diene copolymers, {e.g. EPR and EPDM rubbers}

**NOTE**

This group is used for polymers comprising both ethylene and propylene

- 23/18 . . Homopolymers or copolymers of hydrocarbons having four or more carbon atoms
- 23/20 . . . having four to nine carbon atoms
- 23/22 . . . . Copolymers of isobutene; Butyl rubber {; Homo- or copolymers of other iso-olefins}
- 23/24 . . . having ten or more carbon atoms
- 23/26 . modified by chemical after-treatment
- 23/28 . . by reaction with halogens or compounds containing halogen ([C08L 23/32](#) takes precedence)
- 23/283 . . . {Halogenated homo- or copolymers of iso-olefins}
- 23/286 . . . {Chlorinated polyethylene}
- 23/30 . . by oxidation
- 23/32 . . by reaction with compounds containing phosphorus or sulfur
- 23/34 . . . by chlorosulfonation
- 23/36 . . by reaction with compounds containing nitrogen, e.g. by nitration
- 2023/40 . . {by reaction with compounds changing molecular weight}
- 2023/42 . . . {Depolymerisation, vis-breaking or degradation}
- 2023/44 . . . {Coupling; Molecular weight increase}
- 25/00 Compositions 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; Compositions of derivatives of such polymers**
- 25/02 . Homopolymers or copolymers of hydrocarbons
- 25/04 . . Homopolymers or copolymers of styrene
- 25/06 . . . Polystyrene
- 25/08 . . . Copolymers of styrene ([C08L 29/08](#), [C08L 35/06](#), [C08L 55/02](#) take precedence)
- 25/10 . . . . with conjugated dienes
- 25/12 . . . . with unsaturated nitriles
- 25/14 . . . . with unsaturated esters
- 25/16 . . Homopolymers or copolymers of alkyl-substituted styrenes
- 25/18 . Homopolymers or copolymers of aromatic monomers containing elements other than carbon and hydrogen
- 27/00 Compositions 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; Compositions of derivatives of such polymers**
- 27/02 . not modified by chemical after-treatment
- 27/04 . . containing chlorine atoms
- 27/06 . . . Homopolymers or copolymers of vinyl chloride
- 27/08 . . . Homopolymers or copolymers of vinylidene chloride
- 27/10 . . containing bromine or iodine atoms
- 27/12 . . containing fluorine atoms
- 27/14 . . . Homopolymers or copolymers of vinyl fluoride
- 27/16 . . . Homopolymers or copolymers or vinylidene fluoride
- 27/18 . . . Homopolymers or copolymers or tetrafluoroethene
- 27/20 . . . Homopolymers or copolymers of hexafluoropropene

27/22	. modified by chemical after-treatment	33/08	. . . Homopolymers or copolymers of acrylic acid esters
27/24	. . halogenated	33/10	. . . Homopolymers or copolymers of methacrylic acid esters
<b>29/00</b>	<b>Compositions of homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, each having only one carbon-to-carbon double bond, and at least one being terminated by an alcohol, ether, aldehydo, ketonic, acetal or ketal radical; Compositions of hydrolysed polymers of esters of unsaturated alcohols with saturated carboxylic acids; Compositions of derivatives of such polymers</b>	33/12	. . . . Homopolymers or copolymers of methyl methacrylate
29/02	. Homopolymers or copolymers of unsaturated alcohols ( <a href="#">C08L 29/14</a> takes precedence)	33/14	. . of esters containing halogen, nitrogen, sulfur, or oxygen atoms in addition to the carboxy oxygen
29/04	. . Polyvinyl alcohol; Partially hydrolysed homopolymers or copolymers of esters of unsaturated alcohols with saturated carboxylic acids	33/16	. . . Homopolymers or copolymers of esters containing halogen atoms
29/06	. . Copolymers of allyl alcohol	33/18	. Homopolymers or copolymers of nitriles
29/08	. . . with vinyl-aromatic monomers	33/20	. . Homopolymers or copolymers of acrylonitrile ( <a href="#">C08L 55/02</a> takes precedence)
29/10	. Homopolymers or copolymers of unsaturated ethers ( <a href="#">C08L 35/08</a> takes precedence)	33/22	. . Homopolymers or copolymers of nitriles containing four or more carbon atoms
29/12	. Homopolymers or copolymers of unsaturated ketones	33/24	. Homopolymers or copolymers of amides or imides
29/14	. Homopolymers or copolymers of acetals or ketals obtained by polymerisation of unsaturated acetals or ketals or by after-treatment of polymers of unsaturated alcohols	33/26	. . Homopolymers or copolymers of acrylamide or methacrylamide
<b>31/00</b>	<b>Compositions 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, of carbonic acid or of a haloformic acid (of hydrolysed polymers <a href="#">C08L 29/00</a>); Compositions of derivatives of such polymers</b>	<b>35/00</b>	<b>Compositions 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; Compositions of derivatives of such polymers</b>
31/02	. Homopolymers or copolymers of esters of monocarboxylic acids	35/02	. Homopolymers or copolymers of esters ( <a href="#">C08L 35/06</a> , <a href="#">C08L 35/08</a> take precedence)
31/04	. . Homopolymers or copolymers of vinyl acetate	35/04	. Homopolymers or copolymers of nitriles ( <a href="#">C08L 35/06</a> , <a href="#">C08L 35/08</a> take precedence)
31/06	. Homopolymers or copolymers of esters of polycarboxylic acids	35/06	. Copolymers with vinyl aromatic monomers
31/08	. . of phthalic acid	35/08	. Copolymers with vinyl ethers
<b>33/00</b>	<b>Compositions 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; Compositions of derivatives of such polymers</b>	<b>37/00</b>	<b>Compositions 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 <a href="#">C08L 31/00</a>; of cyclic anhydrides of unsaturated acids <a href="#">C08L 35/00</a>); Compositions of derivatives of such polymers</b>
33/02	. Homopolymers or copolymers of acids; Metal or ammonium salts thereof	<b>39/00</b>	<b>Compositions 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; Compositions of derivatives of such polymers</b>
33/04	. Homopolymers or copolymers of esters ( <a href="#">C08L 43/04</a> takes precedence)	39/02	. Homopolymers or copolymers of vinylamine
33/06	. . of esters containing only carbon, hydrogen and oxygen, which oxygen atoms are present only as part of the carboxyl radical	39/04	. Homopolymers or copolymers of monomers containing heterocyclic rings having nitrogen as ring member
33/062	. . . {Copolymers with monomers not covered by <a href="#">C08L 33/06</a> }	39/06	. . Homopolymers or copolymers of N-vinyl-pyrrolidones
33/064	. . . . {containing anhydride, COOH or COOM groups, with M being metal or onium-cation}	39/08	. . Homopolymers or copolymers of vinyl-pyridine
33/066	. . . . {containing -OH groups}		
33/068	. . . . {containing glycidyl groups}		



<b>41/00</b>	<b>Compositions 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; Compositions of derivatives of such polymers</b>	<b>53/00</b>	<b>Compositions of block copolymers containing at least one sequence of a polymer obtained by reactions only involving carbon-to-carbon unsaturated bonds; Compositions of derivatives of such polymers</b>
		53/005	. {Modified block copolymers}
		53/02	. of vinyl-aromatic monomers and conjugated dienes
		53/025	. . {modified}
<b>43/00</b>	<b>Compositions 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; Compositions of derivatives of such polymers (of metal salts, e.g. phenolates, alcoholates, see the parent compounds)</b>	<b>55/00</b>	<b>Compositions of homopolymers or copolymers, obtained by polymerisation reactions only involving carbon-to-carbon unsaturated bonds, not provided for in groups C08L 23/00 - C08L 53/00</b>
43/02	. Homopolymers or copolymers of monomers containing phosphorus	55/005	. {Homopolymers or copolymers obtained by polymerisation of macromolecular compounds terminated by a carbon-to-carbon double bond}
43/04	. Homopolymers or copolymers of monomers containing silicon	55/02	. ABS [Acrylonitrile-Butadiene-Styrene] polymers
		55/04	. Polyadducts obtained by the diene synthesis
<b>45/00</b>	<b>Compositions 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; Compositions of derivatives of such polymers (of cyclic anhydrides or imides C08L 35/00; of cyclic esters of polyfunctional acids C08L 31/00)</b>	<b>57/00</b>	<b>Compositions of unspecified polymers obtained by reactions only involving carbon-to-carbon unsaturated bonds</b>
45/02	. of coumarone-indene polymers	57/02	. Copolymers of mineral oil hydrocarbons
		57/04	. Copolymers in which only the monomer in minority is defined
		57/06	. Homopolymers or copolymers containing elements other than carbon and hydrogen
		57/08	. . containing halogen atoms
		57/10	. . containing oxygen atoms
		57/12	. . containing nitrogen atoms
<b>47/00</b>	<b>Compositions of homopolymers or copolymers of compounds having one or more unsaturated aliphatic radicals, at least one having two or more carbon-to-carbon double bonds; Compositions of derivatives of such polymers (C08L 45/00 takes precedence; of conjugated diene rubbers C08L 9/00 - C08L 21/00)</b>	<b><u>Compositions of macromolecular compounds obtained otherwise than by reactions only involving carbon-to-carbon unsaturated bonds</u></b>	
		<b>59/00</b>	<b>Compositions of polyacetals; Compositions of derivatives of polyacetals (of polyvinyl acetals C08L 29/14)</b>
		59/02	. Polyacetals containing polyoxymethylene sequences only
		59/04	. Copolyoxymethylenes
<b>51/00</b>	<b>Compositions of graft polymers in which the grafted component is obtained by reactions only involving carbon-to-carbon unsaturated bonds (for ABS polymers C08L 55/02); Compositions of derivatives of such polymers</b>	<b>61/00</b>	<b>Compositions of condensation polymers of aldehydes or ketones (with polyalcohols C08L 59/00; with polynitriles C08L 77/00); Compositions of derivatives of such polymers</b>
51/003	. {grafted on to macromolecular compounds obtained by reactions only involving unsaturated carbon-to-carbon bonds (C08L 51/04, C08L 51/06 take precedence)}	61/02	. Condensation polymers of aldehydes or ketones only
51/006	. {grafted on to block copolymers containing at least one sequence of polymer obtained by reactions only involving carbon-to-carbon unsaturated bonds}	61/04	. Condensation polymers of aldehydes or ketones with phenols only
51/02	. grafted on to polysaccharides	61/06	. . of aldehydes with phenols
51/04	. grafted on to rubbers	61/12	. . . with polyhydric phenols
51/06	. grafted on to homopolymers or copolymers of aliphatic hydrocarbons containing only one carbon-to-carbon double bond	61/14	. . . Modified phenol-aldehyde condensates
51/08	. grafted on to macromolecular compounds obtained otherwise than by reactions only involving unsaturated carbon-to-carbon bonds	61/16	. . of ketones with phenols
51/085	. . {on to polysiloxanes}	61/18	. Condensation polymers of aldehydes or ketones with aromatic hydrocarbons or their halogen derivatives only
51/10	. grafted on to inorganic materials	61/20	. Condensation polymers of aldehydes or ketones with only compounds containing hydrogen attached to nitrogen (with aminophenols C08L 61/04)
		61/22	. . of aldehydes with acyclic or carbocyclic compounds
		61/24	. . . with urea or thiourea
		61/26	. . of aldehydes with heterocyclic compounds
		61/28	. . . with melamine

- 61/30 . . of aldehydes with heterocyclic and acyclic or carbocyclic compounds
- 61/32 . . Modified amine-aldehyde condensates
- 61/34 . Condensation polymers of aldehydes or ketones with monomers covered by at least two of the groups [C08L 61/04](#), [C08L 61/18](#) and [C08L 61/20](#)

**63/00 Compositions of epoxy resins; Compositions of derivatives of epoxy resins**

- 63/04 . Epoxynovolacs
- 63/06 . Triglycidylisocyanurates
- 63/08 . Epoxidised polymerised polyenes
- 63/10 . Epoxy resins modified by unsaturated compounds

**NOTE**

In groups [C08L 65/00](#) - [C08L 85/00](#), in the absence of an indication to the contrary, compositions of macromolecular compounds, obtained by reactions forming two different linkages in the main chain, are classified only according to the linkage present in excess

**65/00 Compositions of macromolecular compounds obtained by reactions forming a carbon-to-carbon link in the main chain ([C08L 7/00](#) - [C08L 57/00](#), [C08L 61/00](#) take precedence); Compositions of derivatives of such polymers**

- 65/02 . Polyphenylenes
- 65/04 . Polyxylenes

**67/00 Compositions of polyesters obtained by reactions forming a carboxylic ester link in the main chain (of polyester-amides [C08L 77/12](#); of polyester-imides [C08L 79/08](#)); Compositions of derivatives of such polymers**

- 67/02 . Polyesters derived from dicarboxylic acids and dihydroxy compounds ([C08L 67/06](#) takes precedence)
- 67/025 . . {containing polyether sequences}
- 67/03 . . the dicarboxylic acids and dihydroxy compounds having the carboxyl- and the hydroxy groups directly linked to aromatic rings
- 67/04 . Polyesters derived from hydroxycarboxylic acids, e.g. lactones ([C08L 67/06](#) takes precedence)
- 67/06 . Unsaturated polyesters
- 67/07 . . having terminal carbon-to-carbon unsaturated bonds
- 67/08 . Polyesters modified with higher fatty oils or their acids, or with resins or resin acids

**69/00 Compositions of polycarbonates; Compositions of derivatives of polycarbonates**

- 69/005 . {Polyester-carbonates}

**71/00 Compositions of polyethers obtained by reactions forming an ether link in the main chain (of polyacetals [C08L 59/00](#); of epoxy resins [C08L 63/00](#); of polythioether-ethers [C08L 81/02](#); of polyether-sulfones [C08L 81/06](#)); Compositions of derivatives of such polymers**

- 71/02 . Polyalkylene oxides
- 71/03 . . Polyepihalohydrins
- 71/08 . Polyethers derived from hydroxy compounds or from their metallic derivatives ([C08L 71/02](#) takes precedence) {not used}
- 71/10 . . from phenols {not used}
- 71/12 . . . Polyphenylene oxides

- 71/123 . . . . {not modified by chemical after-treatment}
- 71/126 . . . . {modified by chemical after-treatment}
- 71/14 . . Furfuryl alcohol polymers

**73/00 Compositions of macromolecular compounds obtained by reactions forming a linkage containing oxygen or oxygen and carbon in the main chain, not provided for in groups [C08L 59/00](#) - [C08L 71/00](#); Compositions of derivatives of such polymers**

- 73/02 . Polyanhydrides

**75/00 Compositions of polyureas or polyurethanes; Compositions of derivatives of such polymers**

- 75/02 . Polyureas
- 75/04 . Polyurethanes
- 75/06 . . from polyesters
- 75/08 . . from polyethers
- 75/10 . . from polyacetals
- 75/12 . . from compounds containing nitrogen and active hydrogen, the nitrogen atom not being part of an isocyanate group
- 75/14 . . Polyurethanes having carbon-to-carbon unsaturated bonds
- 75/16 . . . having terminal carbon-to-carbon unsaturated bonds

**77/00 Compositions of polyamides obtained by reactions forming a carboxylic amide link in the main chain (of polyhydrazides [C08L 79/06](#); of polyamideimides or polyamide acids [C08L 79/08](#)); Compositions of derivatives of such polymers**

- 77/02 . Polyamides derived from omega-amino carboxylic acids or from lactams thereof ([C08L 77/10](#) takes precedence)
- 77/04 . Polyamides derived from alpha-amino carboxylic acids ([C08L 77/10](#) takes precedence)
- 77/06 . Polyamides derived from polyamines and polycarboxylic acids ([C08L 77/10](#) takes precedence)
- 77/08 . . from polyamines and polymerised unsaturated fatty acids
- 77/10 . Polyamides derived from aromatically bound amino and carboxyl groups of amino-carboxylic acids or of polyamines and polycarboxylic acids
- 77/12 . Polyester-amides

**79/00 Compositions 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 [C08L 61/00](#) - [C08L 77/00](#)**

- 79/02 . Polyamines
- 79/04 . Polycondensates having nitrogen-containing heterocyclic rings in the main chain; Polyhydrazides; Polyamide acids or similar polyimide precursors
- 79/06 . . Polyhydrazides; Polytriazoles; Polyamino-triazoles; Polyoxadiazoles
- 79/08 . . Polyimides; Polyester-imides; Polyamide-imides; Polyamide acids or similar polyimide precursors
- 79/085 . . . {Unsaturated polyimide precursors}

<b>81/00</b>	<b>Compositions 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; Compositions of polysulfones; Compositions of derivatives of such polymers</b>	<b>89/005</b>	<b>. {Casein}</b>
81/02	. Polythioethers; Polythioether-ethers	89/02	. Casein-aldehyde condensates
81/04	. Polysulfides	89/04	. Products derived from waste materials, e.g. horn, hoof or hair
81/06	. Polysulfones; Polyethersulfones	89/06	. . derived from leather or skin {, e.g. gelatin}
81/08	. Polysulfonates	<b>91/00</b>	<b>Compositions of oils, fats or waxes; Compositions of derivatives thereof (polishing compositions, ski waxes <a href="#">C09G</a>; soaps, detergent compositions <a href="#">C11D</a>)</b>
81/10	. Polysulfonamides; Polysulfonimides	91/005	. {Drying oils}
<b>83/00</b>	<b>Compositions 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; Compositions of derivatives of such polymers</b>	91/02	. Vulcanised oils, e.g. factice
<b>NOTE</b>	In this main group, from 01.09.2010 onwards, new documents are classified according to the following system. The composition is identified with the C-Set, e.g. ( <b>C08L 83/04</b> , <a href="#">C08L 83/04</a> ) (for a composition containing two or more siloxanes), while the info	91/04	. Linoxyn
83/02	. Polysilicates	91/06	. Waxes
83/04	. Polysiloxanes	91/08	. . Mineral waxes
83/06	. . containing silicon bound to oxygen-containing groups ( <a href="#">C08L 83/12</a> takes precedence)	<b>93/00</b>	<b>Compositions of natural resins; Compositions of derivatives thereof (polishing compositions <a href="#">C09G</a>)</b>
83/08	. . containing silicon bound to organic groups containing atoms other than carbon, hydrogen and oxygen	93/02	. Shellac ( <a href="#">French polish C09F</a> )
83/10	. Block- or graft-copolymers containing polysiloxane sequences (obtained by polymerising a compound having a carbon-to-carbon double bond on to a polysiloxane <a href="#">C08L 51/08</a> , <a href="#">C08L 53/00</a> )	93/04	. Rosin
83/12	. . containing polyether sequences	<b>95/00</b>	<b>Compositions of bituminous materials, e.g. asphalt, tar, pitch</b>
83/14	. in which at least two but not all the silicon atoms are connected by linkages other than oxygen atoms ( <a href="#">C08L 83/10</a> takes precedence)	95/005	. {Aqueous compositions, e.g. emulsions}
83/16	. . in which all the silicon atoms are connected by linkages other than oxygen atoms	<b>97/00</b>	<b>Compositions of lignin-containing materials</b>
<b>85/00</b>	<b>Compositions of macromolecular compounds obtained by reactions forming a linkage in the main chain of the macromolecule containing atoms other than silicon, sulfur, nitrogen, oxygen and carbon; Compositions of derivatives of such polymers</b>	97/002	. {Peat, lignite, coal (ceramic products based on carbon or carbides <a href="#">C04B 35/00</a> ; working-up peat <a href="#">C10F 7/00</a> ; briquettes <a href="#">C10L 5/00</a> )}
85/02	. containing phosphorus	97/005	. {Lignin}
85/04	. containing boron	97/007	. {Cork}
<b>87/00</b>	<b>Compositions of unspecified macromolecular compounds, obtained otherwise than by polymerisation reactions only involving unsaturated carbon-to-carbon bonds</b>	97/02	. Lignocellulosic material, e.g. wood, straw or bagasse {(manufacture of articles made from lignocellulosic material by dry processes <a href="#">B27N</a> )}
87/005	. {Block or graft polymers not provided for in groups <a href="#">C08L 1/00</a> - <a href="#">C08L 85/04</a> }	<b>99/00</b>	<b>Compositions of natural macromolecular compounds or of derivatives thereof not provided for in groups <a href="#">C08L 89/00</a> - <a href="#">C08L 97/00</a></b>
<b>Compositions of natural macromolecular compounds or of derivatives thereof (of polysaccharides <a href="#">C08L 1/00</a> - <a href="#">C08L 5/00</a>; of natural rubber <a href="#">C08L 7/00</a>)</b>		<b>101/00</b>	<b>Compositions of unspecified macromolecular compounds</b>
<b>89/00</b>	<b>Compositions of proteins; Compositions of derivatives thereof (foodstuff preparations <a href="#">A23J 3/00</a>)</b>	101/005	. {Dendritic macromolecules}
		101/02	. characterised by the presence of specified groups {, e.g. terminal or pendant functional groups}
		101/025	. . {containing nitrogen atoms}
		101/04	. . containing halogen atoms
		101/06	. . containing oxygen atoms {( <a href="#">C08L 101/025</a> takes precedence)}
		101/08	. . . Carboxyl groups
		101/10	. . containing hydrolysable silane groups
		101/12	. characterised by physical features, e.g. anisotropy, viscosity or electrical conductivity ( <a href="#">liquid crystal materials or compositions C09K 19/00</a> )
		101/14	. . the macromolecular compounds being water soluble or water swellable, e.g. aqueous gels
		101/16	. the macromolecular compounds being biodegradable
		<b>2201/00</b>	<b>Properties</b>
		2201/02	. Flame or fire retardant/resistant
		2201/04	. Antistatic
		2201/06	. Biodegradable
		2201/08	. Stabilised against heat, light or radiation or oxydation

- 2201/10 . Transparent films; Clear coatings; Transparent materials
- 2201/12 . Shape memory
- 2201/14 . Gas barrier composition
- 2201/22 . Halogen free composition
- 2201/50 . Aqueous dispersion, e.g. containing polymers with a glass transition temperature (T<sub>g</sub>) above 20°C
- 2201/52 . Aqueous emulsion or latex, e.g. containing polymers of a glass transition temperature (T<sub>g</sub>) below 20°C
- 2201/54 . Aqueous solutions or dispersions
- 2201/56 . Non-aqueous solutions or dispersions

#### **Properties; Applications; Other features**

##### **2203/00 Applications**

- 2203/02 . for biomedical use
- 2203/10 . used for bottles
- 2203/12 . used for fibers
- 2203/14 . used for foams
- 2203/16 . used for films
- 2203/162 . . sealable films
- 2203/18 . used for pipes
- 2203/20 . use in electrical or conductive gadgets
- 2203/202 . . use in electrical wires or wirecoating
- 2203/204 . . use in solar cells
- 2203/206 . . use in coating or encapsulating of electronic parts
- 2203/30 . used for thermoforming
- 2203/40 . used as motor oil additive

##### **2205/00 Polymer mixtures characterised by other features**

- 2205/02 . containing two or more polymers of the same [C08L](#)-group
- 2205/025 . . containing two or more polymers of the same hierarchy [C08L](#), and differing only in parameters such as density, comonomer content, molecular weight, structure
- 2205/03 . containing three or more polymers in a blend
- 2205/035 . . containing four or more polymers in a blend
- 2205/04 . containing interpenetrating networks
- 2205/05 . containing polymer components which can react with one another
- 2205/06 . having improved processability or containing aids for moulding methods
- 2205/08 . containing additives to improve the compatibility between two polymers
- 2205/12 . containing additives being liquid crystalline or anisotropic in the melt
- 2205/14 . containing polymeric additives characterised by shape
  - 2205/16 . . Fibres; Fibrils
  - 2205/18 . . Spheres
  - 2205/20 . . . Hollow spheres
- 2205/22 . Mixtures comprising a continuous polymer matrix in which are dispersed crosslinked particles of another polymer
- 2205/24 . Crystallisation aids
- 2205/242 . . Beta spherulite nucleating agents

##### **2207/00 Properties characterising the ingredient of the composition**

- 2207/02 . Heterophasic composition
- 2207/04 . Thermoplastic elastomer
- 2207/06 . Properties of polyethylene

- 2207/062 . . HDPE
- 2207/064 . . VLDPE
- 2207/066 . . LDPE (radical process)
- 2207/068 . . Ultra high molecular weight polyethylene
- 2207/07 . . Long chain branching
- 2207/10 . Peculiar tacticity
- 2207/12 . . Syndiotactic polypropylene
- 2207/14 . . Amorphous or atactic polypropylene
- 2207/20 . Recycled plastic
- 2207/22 . . Recycled asphalt
- 2207/24 . . recycling of old tyres and caoutchouc and addition of caoutchouc particles
- 2207/26 . . recycling of glass in bitumen
- 2207/32 . containing low molecular weight liquid component
- 2207/322 . . Liquid component is processing oil
- 2207/324 . . Liquid component is low molecular weight polymer
- 2207/53 . Core-shell polymer

##### **2308/00 Chemical blending or stepwise polymerisation process with the same catalyst**

##### **2310/00 Masterbatches**

##### **2312/00 Crosslinking**

- 2312/02 . with dienes
- 2312/04 . with phenolic resin
- 2312/06 . by radiation
- 2312/08 . by silane

##### **2314/00 Polymer mixtures characterised by way of preparation**

- 2314/02 . Ziegler natta catalyst
- 2314/04 . Philipps catalyst
- 2314/06 . Metallocene or single site catalysts
- 2314/08 . prepared by late transition metal, i.e. Ni, Pd, Pt, Co, Rh, Ir, Fe, Ru or Os, single site catalyst

##### **2555/00 Characteristics of bituminous mixtures**

- 2555/10 . Design or test methods for bitumen or asphalt mixtures, e.g. series of measures, procedures or tests to obtain a bitumen or asphalt mixture having preset defined properties, general or international test methods, procedures or standards
- 2555/20 . Mixtures of bitumen and aggregate defined by their production temperatures, e.g. production of asphalt for road or pavement applications
- 2555/22 . . Asphalt produced above 140°C, e.g. hot melt asphalt
- 2555/24 . . Asphalt produced between 100°C and 140°C, e.g. warm mix asphalt
- 2555/26 . . Asphalt produced between 65°C and 100°C, e.g. half warm mix asphalt, low energy asphalt produced at 95°C or low temperature asphalt produced at 90°C
- 2555/28 . . Asphalt produced between 0°C and below 65°C, e.g. cold mix asphalt produced between 0°C and 35°C
- 2555/30 . Environmental or health characteristics, e.g. energy consumption, recycling or safety issues
- 2555/32 . . Environmental burden or human safety, e.g. CO<sub>2</sub> footprint, fuming or leaching



- 2555/34 . . . Recycled or waste materials, e.g. reclaimed bitumen, asphalt, roads or pathways, recycled roof coverings or shingles, recycled aggregate, recycled tires, crumb rubber, glass or cullet, fly or fuel ash, or slag
- 2555/40 . . . Mixtures based upon bitumen or asphalt containing functional additives
- 2555/50 . . . Inorganic non-macromolecular ingredients
- 2555/52 . . . . Aggregate, e.g. crushed stone, sand, gravel or cement
- 2555/54 . . . . Sulfur or carbon black
- 2555/60 . . . Organic non-macromolecular ingredients, e.g. oil, fat, wax or natural dye
- 2555/62 . . . . from natural renewable resources
- 2555/64 . . . . . Oils, fats or waxes based upon fatty acid esters, e.g. fish oil, olive oil, lard, cocoa butter, bees wax or carnauba wax
- 2555/70 . . . . from natural non-renewable resources
- 2555/72 . . . . . Petrochemical based or extracted waxes, e.g. paraffin, Montan wax or cracked polyethylene wax
- 2555/74 . . . . . Petrochemicals other than waxes, e.g. synthetic oils, diesel or other fuels, hydrocarbons, halogenated or otherwise functionalized hydrocarbons
- 2555/80 . . . Macromolecular constituents
- 2555/82 . . . . from natural renewable resources, e.g. starch, cellulose, saw dust, straw, hair or shells
- 2555/84 . . . . Polymers comprising styrene, e.g. , polystyrene, styrene-diene copolymers or styrene-butadiene-styrene copolymers
- 2555/86 . . . . Polymers containing aliphatic hydrocarbons only, e.g. polyethylene, polypropylene or ethylene-propylene-diene copolymers
- 2666/00 Composition of polymers characterized by a further compound in the blend, being organic macromolecular compounds, natural resins, waxes or and bituminous materials, non-macromolecular organic substances, inorganic substances or characterized by their function in the composition (not used)**
- NOTE**
- These codes are not used for the classification of new documents. They are a replacement of the combination classes.
- 2666/02 . . . Organic macromolecular compounds, natural resins, waxes or and bituminous materials
- 2666/04 . . . . Macromolecular compounds according to groups [C08L 7/00](#) - [C08L 49/00](#), or [C08L 55/00](#) - [C08L 57/00](#); Derivatives thereof
- 2666/06 . . . . Homopolymers or copolymers of unsaturated hydrocarbons; Derivatives thereof
- 2666/08 . . . . Homopolymers or copolymers according to [C08L 7/00](#) - [C08L 21/00](#); Derivatives thereof
- 2666/10 . . . Homopolymers or copolymers according to [C08L 39/00](#) - [C08L 49/00](#); Derivatives thereof
- 2666/12 . . . Homopolymers or copolymers not provided for in [C08L 2666/06](#) - [C08L 2666/10](#)
- 2666/14 . . . Macromolecular compounds according to [C08L 59/00](#) - [C08L 87/00](#); Derivatives thereof
- 2666/16 . . . . Addition or condensation polymers of aldehydes or ketones according to [C08L 59/00](#) - [C08L 61/00](#); Derivatives thereof
- 2666/18 . . . . Polyesters or polycarbonates according to [C08L 67/00](#) - [C08L 69/00](#); Derivatives thereof
- 2666/20 . . . . Macromolecular compounds having nitrogen in the main chain according to [C08L 75/00](#) - [C08L 79/00](#); Derivatives thereof
- 2666/22 . . . . Macromolecular compounds not provided for in [C08L 2666/16](#) - [C08L 2666/20](#)
- 2666/24 . . . Graft or block copolymers according to groups [C08L 51/00](#), [C08L 53/00](#) or [C08L 55/02](#); Derivatives thereof
- 2666/26 . . . Natural polymers, natural resins or derivatives thereof according to [C08L 1/00](#) - [C08L 5/00](#), [C08L 89/00](#), [C08L 93/00](#), [C08L 97/00](#) or [C08L 99/00](#)
- 2666/28 . . . Non-macromolecular organic substances
- 2666/30 . . . Hydrocarbons
- 2666/32 . . . Halogen-containing compounds
- 2666/34 . . . Oxygen-containing compounds, including ammonium and metal salts
- 2666/36 . . . Nitrogen-containing compounds
- 2666/38 . . . Sulfur-, selenium- or tellurium-containing compounds
- 2666/40 . . . Phosphorus-containing compounds
- 2666/42 . . . . Compounds containing phosphorus and sulfur
- 2666/44 . . . Silicon-containing compounds
- 2666/46 . . . Boron-containing compounds
- 2666/48 . . . Organo-metallic compounds, i.e. organic compounds containing a metal-to-carbon bond
- 2666/50 . . . Arsenic- or antimony-containing compounds
- 2666/52 . . . Metal-containing compounds
- 2666/54 . . . Inorganic substances
- 2666/55 . . . Carbon
- 2666/58 . . . SiO<sub>2</sub> or silicates
- 2666/60 . . . . Asbestos
- 2666/62 . . . . Clay
- 2666/64 . . . Sulfur
- 2666/66 . . . Substances characterised by their function in the composition
- 2666/68 . . . Plasticizers; Solvents
- 2666/70 . . . Organic dyes or pigments; Optical brightening agents
- 2666/72 . . . Fillers; Inorganic pigments; Reinforcing additives
- 2666/74 . . . . Aggregates
- 2666/76 . . . . Textured backings, e.g. woven or non-woven
- 2666/78 . . . Stabilisers against oxidation, heat, light or ozone
- 2666/80 . . . . Metal-containing stabilizers
- 2666/82 . . . . Phosphorus-containing stabilizers
- 2666/84 . . . Flame-proofing or flame-retarding additives
- 2666/86 . . . Antistatics