

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](#))

Definition statement

This place covers:

- Processes of treating or compounding macromolecular substances as covered by [C08J 3/00](#),
- Manufacture of articles or shaped materials containing macromolecular substances as covered by [C08J 5/00](#),
- Chemical treatment or coating of shaped articles made of macromolecular substances as covered by [C08J 7/00](#),
- Working-up of macromolecular substances to porous or cellular articles or materials or after-treatment thereof as covered by [C08J 9/00](#),
- Recovery or working-up of waste materials as covered by [C08J 11/00](#).

Relationships with other classification places

Adhesive sheets are classified in [C09J 7/00](#)

References

Limiting references

This place does not cover:

Mechanical aspects of working-up	B29C
Working-up of compositions comprising more than 50% of mineral filler	C04B
Adhesive processes in general	C09J 5/00

Informative references

Attention is drawn to the following places, which may be of interest for search:

Layered products, manufacture thereof	B32B
---------------------------------------	----------------------

Special rules of classification

- In this subclass , at each hierarchical level, in the absence of an indication to the contrary, classification is made in the last appropriate place
- In this subclass, the polymer involved in the working-up is specified using Indexing Codes of the group [C08J 2300/00-C08J 2399/00](#).
- When the presence of one or several additional polymers, present in minority, is of relevance, this additional polymer is specified using Indexing Codes of the group [C08J 2400/00-C08J 2499/00](#).

C08J 3/00

Processes of treating or compounding macromolecular substances

Definition statement

This place covers:

The chemical aspect of making solutions, dispersions or lattices, powdering or granulating, plasticizing, compounding with additives, cross linking, vulcanising and treatment by wave energy or particle radiation

Relationships with other classification places

Multiple classification

The way of preparing solutions, emulsions, classified in [C08J 3/02](#), can be part of the preparation and characterisation of paints and should also be classified in [C09D 7/00](#).

The use of a specific emulsifying agent classified in [B01F 17/00](#) could apply to the emulsification of polymers and be also classified in [C08J 3/02](#).

References

Limiting references

This place does not cover:

Treatment by wave energy or irradiation of shaped articles	C08J 7/12
Cosmetic or similar preparations: characterized by their physical form	A61K 8/00
Mechanical aspects of mixing, emulsifying and dispersing	B01F
Catalyst carrier	B01J 32/00
Protection of catalyst (coating)	B01J 33/00
Making granules	B29B 9/00
Mechanical aspects of cross linking	B29C 35/00
Chemical modification of rubber	C08C
Making solution dispersion or lattices by solution, emulsion or suspension polymerisation	C08F 2/00
Post polymerisation treatment of polymer emulsions or solutions	C08F 6/00
Cross linking aspects not classifiable in these groups	C08G , C08F , C08K
Plasticising macromolecules characterized by the plasticizer	C08K 5/00 , C08K 3/00
Encapsulation of additives	C08K 9/00

Application-oriented references

Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

Medicinal preparations characterized by the non-active ingredient, e.g. characterization by their physical form	A61K 47/50
Treatment of inorganic materials other than fibrous filler in order to enhance their filling or pigmenting properties	C09C
Pigment paste	C09D 17/00
Preparation method of toner particles	G03G 9/08

Informative references

Attention is drawn to the following places, which may be of interest for search:

Chemical aspects of absorbent pads	A61L 15/16
------------------------------------	----------------------------

Special rules of classification

[C08J 3/122](#) takes precedence over [C08J 3/124](#), [C08J 3/126](#) and [C08J 3/128](#).

This class could also be associated with [C08J 3/02](#), as it is relevant for the process for making solution or emulsion.

In [C08J 3/22](#), the additive added as master batch could also be a polymer.

This class could also be associated to [C08J 3/20](#), i.e. compounding polymer with additive.

C08J 3/18**Plasticising macromolecular compounds (plasticisers [C08K](#))****Definition statement**

This place covers:

This group covers the process of treating polymers with plasticizers in order to modify thermal and mechanical properties of the polymer

Relationships with other classification places

Plasticizers as such are classified in [C08K](#)

C08J 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](#))

Definition statement

This place covers:

- Direct processing of dispersions, e.g. latex, to articles.
- Reinforcing macromolecular compounds with fibrous and/or nanosized materials.
- Bonding of a preformed macromolecular material to the same or other solid material.
- Manufacturing of films and sheets.
- Manufacture of shaped structures of ion- exchange resin, e.g. membranes.
- Impregnating materials with prepolymers, e.g. manufacturing of prepregs.

Relationships with other classification places**Multiple classification:**

The chemical aspect of making polymer composites with loose or coherent fibrous material classified in [C08J 5/04](#) could be associated with

- [B29C 70/00](#): mechanical aspect of making such composites in a specific process for making composites;
- [C08K 7/00](#) or [C08K 9/00](#): compounded polymer compositions characterized by the fibrous material.

- [C08J 5/04](#) refers to the process of reinforcing a polymer matrix, while [C08K 7/00](#) and [C08K 9/00](#) to a compounded composition characterized by the fibrous material.

References

Limiting references

This place does not cover:

Shaping of foodstuffs	A23P
Membranes for dialysis, osmosis or filtration, e.g. semi-permeable membranes	B01D 67/00 , B01D 69/00 , B01D 71/00
Ion-exchange in general	B01J 39/18 - B01J 39/22 , B01J 47/12
Anion-exchange in general	B01J 41/12 - B01J 41/16
Amphoteric ion-exchange	B01J 43/00
Regeneration of ion-exchangers	B01J 49/00
Microstructural technology	B81
Treatment of rubber latex	C08C 1/00
Treatment of polymer emulsions	C08F 6/14
Nanosized additives; Use of ingredients characterised by shape	C08K 7/00
Surface modified additives	C08K 9/00
Other nonwoven fabrics	D04H 13/00
Finishing of textiles	D06M

Application-oriented references

Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

Medicinal preparations characterized by the non-active ingredient: characterization by their physical form	A61K 47/50
Treatment of inorganic materials other than fibrous filler in order to enhance their filling or pigmenting properties	C09C
Pigment paste	C09D 17/00
Adhesive processes	C09J 5/00
Fuel cells with polymeric electrolyte material	H01M 8/10

Informative references

Attention is drawn to the following places, which may be of interest for search:

Multilayer films	B32B 27/00
After treatment of threads during manufacturing	D01F
Fuel cells with polymeric electrolyte material	H01M 8/1018

Special rules of classification

IPC groups **C08J5/14** (Manufacture of abrasive or friction articles or materials) and **C08J5/16** (Manufacture of articles or materials having reduced friction) are not used and have been transferred to respectively [C09K 3/14](#) and [C10M](#).

C08J 5/005

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

Definition statement

This place covers:

The reinforcement of polymers with nanofillers as structuring agent

References

Limiting references

This place does not cover:

Nanotechnology for materials and surface science	B82Y 30/00
Use of ingredients characterised by shape	C08K 7/00

Special rules of classification

For polymers comprising nanoadditives without reinforcing structure, documents are classified in [C08K](#).

C08J 5/02

Direct processing of dispersions, e.g. latex, to articles

Definition statement

This place covers:

The direct processing of latex, e.g. for hand gloves.

Relationships with other classification places

The treatment of latexes in general is to be classified in [C08F 6/14](#), for rubber latex it should be classified in [C08C 1/00](#).

C08J 5/04

Reinforcing macromolecular compounds with loose or coherent fibrous material (after-treatment of threads during manufacture [D01F](#); {finishing of textiles [D06M](#)})

Definition statement

This place covers:

The reinforcement of macromolecular compounds (thermoplastic) with loose or coherent fibrous material (no continuous fibres)

Relationships with other classification places

The difference between [C08J 5/04](#) and [C08K 7/00](#) is made on the basis of explicit disclosure of composite which should be distinguished from reinforced plastics. A document will be classified in [C08K 7/00](#) when it concerns only reinforcement of plastics like polyamide with glass fibres.

References

Limiting references

This place does not cover:

After-treatment of threads during manufacture	D01F
Finishing of textiles	D06M

C08J 5/18

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

Definition statement

This place covers:

The manufacture of self-standing monolayers films or sheets characterised by chemical features or parameters:

Self-standing films are to be understood as films which are different from films made by coating on substrate.

The mechanical aspect of the formation of films (extrusion, blow-moulding) is not covered under [C08J 5/18](#).

The films as such are also covered by [C08J 5/18](#)

Porous or microporous films are covered by [C08J 5/18](#) when the pores are obtained mechanically

Relationships with other classification places

Adhesive sheets are classified in [C09J 7/00](#)

Optical sheets are classified in [G02B](#)

Prepregs are classified in [C08J 5/24](#)

References

Limiting references

This place does not cover:

Coating of shaped articles made of polymers with polymeric layers	C08J 7/04
Process for making films only characterized by the use of specific apparatus, e.g. extruding, blow moulding or thermoforming	B29C
Films which are only coated layers	C09D

Informative references

Attention is drawn to the following places, which may be of interest for search:

Shaping by stretching, e.g. drawing through a die, characterized by the choice of materials	B29C 55/005
Producing flat articles, e.g. films or sheets	B29D 7/01
Layered products essentially comprising synthetic resin	B32B 27/00 - B32B 27/42
Wrappers or flexible covers; Packaging materials of special type or form, e.g. wrappers or envelopes with shock-absorbing properties	B65D 65/00 - B65D 65/466

Special rules of classification

- The type of polymer used to make the film is indicated using Indexing Codes of the group [C08J 2300/00-C08J 2399/00](#).
- When the presence of one or several additional polymers, present in minority, is of relevance, this additional polymer is specified using Indexing Codes of the group [C08J 2400/00-C08J 2499/00](#).

Example: Polypropylene films are classified in [C08J 5/18](#) and [C08J 2323/12](#).

C08J 5/20

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

Definition statement

This place covers:

ManufactureThe product of manufacture of ion-exchange membranes based on inorganic and/or organic macromolecules; usually processes of making polyelectrolytes are classified here.

This group covers the manufacturing process as well as the obtained products.

References**Informative references**

Attention is drawn to the following places, which may be of interest for search:

Use of macromolecular compounds as cation exchangers	B01J 39/20
Use of macromolecular compounds as anion exchangers	B01J 41/14

Special rules of classification

Please see the Rules under [C08J 5/18](#).

C08J 5/22

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

Definition statement

This place covers:

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.

Membranes based on cellulose, covered by [C08J 5/2212](#).

Methods for incorporating reinforcement supports or filling bodies are classified, where the support of filling body has no ion-exchange activity covered by [C08J 5/2206](#).

Ion-exchanging fibrous fabrics are considered as heterogeneous membranes covered by [C08J 5/2275](#); they include composite membranes, mixtures of two or more (ion exchange) polymers.

Reactions which change the nature of the ion-exchanging groups, introduction of ion-exchanging groups, after-treatment with membrane having been already been formed, covered by [C08J 5/2287](#).

References

Limiting references

This place does not cover:

Processes of separation using semi-permeable membranes, e.g. reverse osmosis, microfiltration or ultrafiltration	B01D 61/00 - B01D 61/58
Semi-permeable membranes of macromolecular compounds	B01D 71/08 - B01D7/82
Ion-exchange in general	B01J 39/18 - B01J 39/22 , B01J 41/12 - B01J 41/16 , B01J 43/00 , B01J 45/00 , B01J 47/12 - B01J 49/00
Electrolyte membranes which are characterized only by the construction, e.g. porosity or presence of specific electrolytes, the polymer being not specific	H01M 8/00
Fuel cells with polymeric electrolyte material	H01M 8/10

Informative references

Attention is drawn to the following places, which may be of interest for search:

Fuel cells with solid polymeric electrolyte materials	H01M 8/10
---	---------------------------

Special rules of classification

Groups. e.g. [-G02F](#), 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. [-G02H](#), are considered as such.

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 for example in the form of fabrics, or the like, i.e. the ion exchange resin forms the membrane.

Quaternising reactions are not considered as after-treatments.

Please see also the Rules under [C08J 5/18](#).

C08J 5/2206

{based on organic and/or inorganic macromolecular compounds}

Definition statement

This place covers:

Ion-exchange membranes based on organic and/or inorganic polymers.

Methods for incorporating reinforcement supports or filling bodies, the support or filling body having no ion exchange activity.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Fuel cells with solid polymeric electrolyte materials	H01M 8/10
---	---------------------------

Special rules of classification

Please see the Rules under [C08J 5/18](#).

C08J 5/2212

{Natural macromolecular compounds}

Definition statement

This place covers:

Ion-exchange membranes based on natural polymers, e.g. cellulose.

Special rules of classification

Please see the Rules under [C08J 5/18](#).

C08J 5/2218

{Synthetic macromolecular compounds}

Definition statement

This place covers:

Ion-exchange membranes based on synthetic organic polymers.

Special rules of classification

Please see the Rules under [C08J 5/18](#).

C08J 5/2225

{containing fluorine}

Definition statement

This place covers:

Ion-exchange membranes based on synthetic organic polymers containing fluorine.

Special rules of classification

Please see the Rules under [C08J 5/18](#).

C08J 5/2231

{based on macromolecular compounds obtained by reactions involving unsaturated carbon-to-carbon bonds}

Definition statement

This place covers:

Ion-exchange membranes based on synthetic polymers obtained by addition polymerization ([C08F](#)) reactions.

C08J 5/2237

{containing fluorine}

Definition statement

This place covers:

Ion-exchange membranes based on synthetic polymers obtained by addition polymerization ([C08F](#)) reactions and containing fluorine.

Special rules of classification

Please see the Rules under [C08J 5/18](#).

C08J 5/2243

{obtained by introduction of active groups capable of ion-exchange into compounds of the type [C08J 5/2231](#)}

Definition statement

This place covers:

Ion-exchange membranes obtained by introduction of active groups of ion-exchange groups into compounds of the type [C08J 5/2231](#).

Special rules of classification

Please see the Rules under [C08J 5/18](#).

Groups, e.g. SO_2F , 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. SO_2H , are considered as such.

C08J 5/225**{containing fluorine}****Definition statement***This place covers:*

Ion-exchange membranes obtained by introduction of active groups of ion-exchange groups into compounds of the type [C08J 5/2231](#) containing fluorine.

Special rules of classification

Please see the Rules under [C08J 5/18](#).

C08J 5/2256**{based on macromolecular compounds obtained by reactions other than those involving carbon-to-carbon bonds, e.g. obtained by polycondensation}****Definition statement***This place covers:*

Ion-exchange membranes based on polymers obtained by step polymerization ([C08G](#)) reactions (condensation or polyaddition polymerization).

Special rules of classification

Please see the Rules under [C08J 5/18](#).

C08J 5/2262**{containing fluorine}****Definition statement***This place covers:*

Ion-exchange membranes based on polymers obtained by step polymerization ([C08G](#)) reactions (condensation or polyaddition polymerisation) and containing fluorine.

Special rules of classification

Please see the Rules under [C08J 5/18](#).

C08J 5/2268**{based on macromolecular compounds obtained by reactions involving unsaturated carbon-to-carbon bonds, and by reactions not involving this type of bond}****Definition statement***This place covers:*

Ion-exchange membranes obtained by step polymerization ([C08G](#)) and addition polymerization ([C08F](#)) reactions (both types of reaction are present)

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Please see the Rules under [C08J 5/18](#).

C08J 5/2275

{Heterogeneous membranes}

Definition statement

This place covers:

- Heterogeneous or composite ion-exchange membranes.
- Ion-exchanging fibrous fabrics, which are considered as heterogeneous membranes; they include composite membranes, mixtures of two or more (ion exchange) polymers.
- Membranes obtained by homogeneous melting or from a solution, which 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.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Composite membranes; Ultra-thin membranes	B01D 69/12- B01D 69/14
---	--

Special rules of classification

Please see the Rules under [C08J 5/18](#).

C08J 5/2281

{fluorine containing heterogeneous membranes}

Definition statement

This place covers:

Heterogeneous or composite ion-exchange membranes containing fluorine

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Composite membranes; Ultra-thin membranes	B01D 69/12- B01D 69/148
---	---

Special rules of classification

Please see the Rules under [C08J 5/18](#).

C08J 5/2287

{After-treatment}

Definition statement

This place covers:

- After-treatment of already formed ion-exchange membranes.
- Reactions which change the nature of the ion-exchanging groups, introduction of ion-exchanging groups
- After-treatment, the membrane having been already formed

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Processes specially adapted for manufacturing semi-permeable membranes for separation processes or apparatus	B01D 67/00
--	----------------------------

Special rules of classification

Please see the Rules under [C08J 5/18](#).

Quaternising reactions are not considered as after-treatments.

C08J 5/2293

{After-treatment of fluorine-containing membranes}

Definition statement

This place covers:

After-treatment of already formed fluorine containing ion-exchange membranes.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Processes specially adapted for manufacturing semi-permeable membranes for separation processes or apparatus	B01D67/0087 , B01D 71/00
--	---

Special rules of classification

Please see the Rules under [C08J 5/18](#).

Reactions which change the nature of the ion-exchanging groups, introduction of ion-exchanging groups, after-treatment (where the membrane has already been formed) are classified in [C08J 5/2287](#) or in [C08J 5/2293](#).

Quaternising reactions are not considered as after-treatments.

C08J 5/24

Impregnating materials with prepolymers which can be polymerised in situ, e.g. manufacture of prepregs

Definition statement

This place covers:

Prepregs, i.e. reinforcement material preimpregnated with a resin matrix.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Layered products characterised by the presence of two or more layers, wherein one layer is a fibrous or filamentary layer impregnated with or embedded in a plastic substance	B32B 5/28
---	---------------------------

Special rules of classification

Please see the Rules under [C08J 5/18](#).

C08J 7/00

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

Definition statement

This place covers:

[C08J 7/00](#) concern all types of treatments, chemical, physical and coating of shaped articles comprising polymeric substrates, i.e. continuous polymeric surfaces.

Relationships with other classification places

[C08J 7/00](#) relates to processes of treating or coating polymeric substrates only.

[C09D](#) relates to coating compositions.

[B05D](#) relates to processes for applying liquids or other fluent materials to surfaces in general.

Adhesive sheets are classified in [C09J 7/00](#)

[D06M 15/00](#) relates to the coating of polymer fibres and [D01F](#) relates to the chemical treatment of fibres.

References

Limiting references

This place does not cover:

Coating with metallic material	C23C
Electrolytic deposition of metals	C25
Treating textile materials	D06

Informative references

Attention is drawn to the following places, which may be of interest for search:

Processes for applying liquids or other fluent materials to surfaces in general	B05D
Coating compositions	C09D

Special rules of classification

- The treatment of specific polymers is indicated using Indexing Codes of the group [C08J 2300/00-C08J 2399/00](#).
- When the presence of one or several additional polymers, present in minority, is of relevance, this additional polymer is specified using Indexing Codes of the group [C08J 2400/00-C08J 2499/00](#).

Example - Surface treatment of a polypropylene film is classified in [C08J 7/00](#) and [C08J 2323/12](#).

C08J 7/02

with solvents, e.g. swelling agents

Definition statement

This place covers:

Treatment of polymeric substrates with solvents or swelling agents.

References**Informative references**

Attention is drawn to the following places, which may be of interest for search:

Recovery or working-up of waste materials using selective solvents for polymer components.	C08J 11/08
After-treatment of articles without altering their shape; using liquids, e.g. solvents, swelling agents.	B29C 71/0009

Special rules of classification

Please see the Rules under [C08J 7/00](#).

C08J 7/04

Coating {(coating compositions per se [C09D 4/00](#), [C09D 101/00](#) - [C09D 201/00](#))}

Definition statement

This place covers:

Coating of polymeric substrates in general.

Relationships with other classification places

Please see the Rules under [C08J 7/00](#).

References

Limiting references

This place does not cover:

Please the References under under [C08J 7/00](#).

Informative references

Attention is drawn to the following places, which may be of interest for search:

Coating compositions based on organic non-macromolecular compounds having at least one polymerisable carbon-to-carbon unsaturated bond	C09D 4/00
Coating compositions per se	C09D 101/00 - C09D 201/00

Special rules of classification

Please see the Rules under [C08J 7/00](#).

C08J 7/042

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

Definition statement

This place covers:

Multiple coatings on a polymeric substrate, where at least one layer of a composition contains a polymer binder.

Relationships with other classification places

Please see the Relationship under under [C08J 7/00](#).

References

Limiting references

This place does not cover:

Layered products essentially comprising synthetic resin	B32B 27/00
---	----------------------------

Special rules of classification

- The treatment of specific polymers is indicated using Indexing Codes of the group group [C08J 2300/00-C08J 2399/00](#).
- When the presence of one or several additional polymers, present in minority, is of relevance, this additional polymer is specified using Indexing Codes of the group [C08J 2400/00-C08J 2499/00](#).

Example - Coating of a polypropylene film with a polyurethane layer and a polyepoxy layer is classified in [C08J 7/00](#) and [C08J 2323/12](#) and [C08J 2475/04](#) and [C08J 2463/00](#).

C08J 7/045

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

Definition statement

This place covers:

Multiple coatings on a polymeric substrate with at least one layer of inorganic material and at least one layer of a composition containing a polymer binder.

Relationships with other classification places

Please the Relationship under under [C08J 7/00](#).

References**Limiting references**

This place does not cover:

See corresponding note under [C08J 7/00](#).

Informative references

Attention is drawn to the following places, which may be of interest for search:

Please the References under under [C08J 7/00](#).

Special rules of classification

Please see the Rules under [C08J 7/00](#).

C08J 7/047

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

Definition statement

This place covers:

Coating a polymeric substrate with a single layer containing an unspecified polymer binder.

References**Limiting references**

This place does not cover:

Multiple coatings on a polymeric substrate	C08J 7/042
--	----------------------------

Informative references

Attention is drawn to the following places, which may be of interest for search:

Coating compositions based on unspecified macromolecular compounds	C09D 201/00 - C09D 201/10
--	--

Special rules of classification

- The coating of a specific polymeric substrate with a layer of an unspecified polymer binder is using Indexing Codes of the group group [C08J 2300/00-C08J 2399/00](#).
- When the presence of one or several additional polymers, present in minority, is of relevance, this additional polymer is specified using Indexing Codes of the group [C08J 2400/00-C08J 2499/00](#).

Example -1: Coating of a polycarbonate substrate with a protective polymeric layer is classified in [C08J 7/047](#) and [C08J 2369/00](#);

When both the substrate and the coating are unspecified the classification [C08J 7/047](#) alone is used.

Example -2: Coating a polycarbonate substrate with a polyurethane layer is classified in [C08J 7/047](#) and [C08J 2369/00](#) and [C08J 2475/04](#)

C08J 7/06

with compositions not containing macromolecular substances

Definition statement

This place covers:

Coating, impregnating, adsorbing or absorbing a polymeric substrate with low-molecular weight compounds; mainly inorganic compounds. No metallization!

References

Limiting references

This place does not cover:

Coating with metallic material	C23C
--------------------------------	----------------------

Informative references

Attention is drawn to the following places, which may be of interest for search:

Coating compositions based on inorganic substances.	C09D 1/00- C09D 1/12
---	--------------------------------------

Special rules of classification

Please see the Rules under [C08J 7/00](#).

C08J 7/065

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

Definition statement

This place covers:

Coating, impregnating, adsorbing or absorbing of a polymeric substrate with low-molecular weight organic substances e.g. absorption of dyes in the surface of the article;

Treatment of a polymer substrate with antimicrobial agent.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Features of coating compositions; non-macromolecular additives	C09D 7/63
--	---------------------------

Special rules of classification

Please see the Rules under [C08J 7/00](#).

C08J 7/08

{Heat treatment}

Definition statement

This place covers:

Thermal treatment of polymer substrates with heat, e.g. flame.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Surface shaping by flame treatment e.g. hot gases	B29C 59/08 , B29C 59/085
---	---

Special rules of classification

Please see the Rules under [C08J 7/00](#).

C08J 7/12

Chemical modification

Definition statement

This place covers:

Chemical modification of a polymeric surface.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Chemical modification of membranes	B01D 67/0093
Chemical modification by after-treatment	C08F 8/00 - C08F 8/50 , C08G 2/30 , C08G 59/14 , C08G 63/46 , C08G 63/91 , C08G 64/42 , C08G 65/32 , C08G 65/48 , C08G 69/48 , C08G 75/0286 , C08G 77/38 , C08G 85/004

Special rules of classification

Please see the Rules under [C08J 7/00](#).

Glossary of terms

In this place, the following terms or expressions are used with the meaning indicated:

Chemical etching	Chemical modification of a polymeric surface
------------------	--

C08J 7/123

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

Definition statement

This place covers:

Treatment of polymeric substrates with electromagnetic radiation, e.g. corona, plasma, X-rays or γ-rays, UV, laser, etc.

Relationships with other classification places

[C08J 7/123](#) vs [C08J 3/28](#)

[C08J 7/123](#) refers to the treatment of a polymeric surface with electromagnetic radiation, while [C08J 3/28](#) refers to the treatment of the bulk of a polymer with electromagnetic radiation.

[C08J 7/123](#) concerns the chemical modification of a polymeric substrate by electromagnetic radiation and the treated substrate may be coated during the treatment or at a later stage or not at all. Coatings based on the process of pre-treatment of polymers substrate are classified in [B05D 3/144](#). If the coating process is more directed to the chemistry of the coated layers, it's classified in [C08J 7/123](#).

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Treatment (the bulk) of a macromolecular compound by wave energy or radiation	C08J 3/28
Pretreatment of polymeric substrates with plasma	B05D 3/144
Surface shaping of articles by plasma treatment	B29C 59/14
Surface shaping of articles by wave energy or particle radiation	B29C 59/16 , B29C 59/165

Special rules of classification

Please see the Rules under [C08J 7/00](#).

Synonyms and Keywords

In patent documents the following expressions are often used as synonyms.

Particle radiation treatment	Plasma treatment Electron beam treatmentElectronic irradiation
Wave energy treatment	Corona discharge Glow discharge Ultraviolet treatmentUV treatment

C08J 7/126

{Halogenation}

Definition statement

This place covers:

Halogenation (e.g. chlorination or fluorination) of polymeric surfaces.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Chemical modification by after-treatment halogenation	C08F 8/20
---	---------------------------

Special rules of classification

See corresponding note under [C08J 7/00](#).

Synonyms and Keywords

Chlorination	Chloration
Fluorination	Fluoration

C08J 7/14

with acids, their salts or anhydrides

Definition statement

This place covers:

Chemical modification of a polymeric surface with acids, their salts or anhydrides to apply functional groups onto the surface of the treated article.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Please see the References under [C08J 7/00](#).

Special rules of classification

Please see the Rules under [C08J 7/00](#).

C08J 7/16

with polymerisable compounds

Definition statement

This place covers:

Polymerization of monomer(s) on top of a polymeric surface.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Coating compositions, e.g. paints, varnishes or lacquers, based on organic non-macromolecular compounds having at least one polymerisable carbon-to-carbon unsaturated bond	C09D 4/00 - C09D 4/06
---	---

Special rules of classification

Please see the Rules under [C08J 7/00](#).

C08J 7/18

using wave energy or particle radiation

Definition statement

This place covers:

Polymerization of monomer(s) on top of a polymeric surface using wave energy or particle radiation.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Plasma-deposition of organic layers	B05D 1/62
-------------------------------------	---------------------------

Special rules of classification

Please see the Rules under [C08J 7/00](#).

Synonyms and Keywords

Please see the Synonyms or Keywords under [C08J7/02A](#).

C08J 9/00

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

Relationships with other classification places

- Documents essentially dealing with the mechanical aspects of the foaming process are classified in group [B29C 44/00](#).
- Documents essentially dealing with medical applications are classified in [A61L](#).

References

Limiting references

This place does not cover:

Sponges for cleaning purposes	A47L 13/16
-------------------------------	----------------------------

Medical applications	A61L
Manufacture of microcapsules or microballoons	B01J 13/02
Mechanical aspects of foaming	B29C 44/00
Foams containing more than 50% inorganic filler	C04B
Synthesis and blends of organic blowing agents	C07C
Polyurethane foams only characterized by the reactants, e.g. polyol or isocyanate	C08G 18/00
Use of a filler in a non foamed polymer composition	C08K
Polymer blends per se	C08L
Propellants for aerosols	C09K 3/30

Application-oriented references

Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

Porous films	C08J 5/18
Use of foams for bandages, dressings or absorbent pads	A61L 15/00
Materials for prostheses	A61L 27/00
Membranes	B01D 67/00 - B01D 71/00

Special rules of classification

The blowing or foaming agents involved are classified in [C08J 9/02](#) - [C08J 9/149](#)

- The foaming processes are classified in [C08J 9/16](#) - [C08J 9/35](#)
- The foaming processes are classified in [C08J 9/16](#) - [C08J 9/35](#)

In the absence of an indication to the contrary, classification is made in the last appropriate place.

Example: Halogenated phosphoric compound as additive is classified in [C08J 9/0038](#)

Documents belonging to several subgroups are also classified in the "one dot less" subgroup.

Example: The combination of brominated flame retardant and phosphoric compound is classified in [C08J 9/0019](#), [C08J 9/0038](#) and [C08J 9/0014](#).

The use of water as sole blowing agent for (poly)isocyanate-containing foams is regarded as trivial. It is not classified in [C08J](#).

Mixtures of organic and inorganic blowing agents are classified in [C08J 9/127](#) and each blowing agent of the mixture is also classified according to its nature.

Foams are subdivided according to the involved polymer(s) using the [C08L](#) IPC scheme:

When a foam is a.o. characterized by the involved polymer(s), then Indexing Codes of the [C08J 2300/00](#)-[C08J 2399/00](#) are given, in order to specify said polymer(s).

The structure of the [C08J 2300/00](#) classification is mainly based on the classification of [C08L](#).

Example: [C08J 2325/06](#) corresponds to [C08L 25/06](#) (polystyrene) Additionally, [C08J 2300/00](#) - [C08J 2300/30](#) specify polymers which are broadly defined.

When a document deals with one single polymer or several alternative polymers, but no polymer blend, then an Indexing Code of the [C08J 2300/00](#) range is used.

Examples: The use of an alkane blowing agent for expanding polystyrene is classified in [C08J 9/141](#) and [C08J 2325/06](#).

The use of alkane blowing agent for expanding polystyrene or polyethylene is classified in [C08J 9/141](#), and [C08J 2325/06](#) and [C08J 2323/06](#).

Further subdivisions:

This subgroup is only allocated when, in addition to a "main" polymer, a second or third polymer is present in the foamable blend. This second or third polymer is always in minority, compared to the main polymer.

- - Please see the Rules under [C08J 9/00](#).

As above, the "main" polymer is indexed using [C08J 2300/00-C08J 2399/00](#).

- - The polymeric component in minority is indexed using [C08J 2400/00-C08J 2499/00](#).

Example: A foam from a blend of 80% polystyrene and 20% PMMA is classified in [C08J 9/0061](#), [C08J 2325/06](#) and [C08J 2433/12](#).

- When overlapping ranges of two polymers are claimed or exclusively exemplified, then "mirror classification" is given.

Example: A foamable blend of 80-20% polystyrene and 20-80% polyethylene is classified in [C08J 9/0061](#) and [C08J 2425/06](#) and [C08J 2323/06](#), and [C08J 2423/06](#) and [C08J 2325/06](#).

Common sense says any [C08J 2300/00-C08J 2399/00](#) can be used in combination with any [C08J 2400/00-C08J 2499/00](#) to define the invention.

- Second and/or third polymers, only present in very low proportions may be ignored, provided their presence is not the key of the invention.

- Foam compositions wherein only the polymer in minority is defined are classified in [C08J 9/0061](#) and [C08J 2400/00-C08J 2499/00](#).

Example: Foam comprising 10% polystyrene in 90% of another polymer is classified in [C08J 9/0061](#) and [C08J 2425/06](#).

[C08J 9/224](#)

In these subgroups, Indexing Codes of the [C08J 2400/00-C08J 2499/00](#) are used to designate the polymer used for coating, binding or impregnating the foam (particle). The foam itself receives a [C08J 2300/00-C08J 2399/00](#) code.

[C08J 9/33](#)

In these subgroup, Indexing Codes of the [C08J 2400/00-C08J 2499/00](#) are used to designate the foam fragments. The foamable ([C08J 9/35](#)) or unfoamable matrix ([C08J 9/33](#)) is specified using [C08J 2300/00-C08J 2399/00](#).

[C08J 9/26](#)

Indexing Codes [C08J 2201/04](#) - [C08J 2201/0484](#) are used in [C08J 9/26](#), for specifying the solid to be extracted.

Indexing Codes [C08J 2201/05](#) - [C08J 2201/0545](#) are used in [C08J 9/28](#), for specifying the first step of the separation process (cooling, evaporation, precipitation).

Glossary of terms

In this place, the following terms or expressions are used with the meaning indicated:

Blowing agent	Substance which is either gaseous at ambient temperature or capable of reversibly becoming gaseous upon heating (C08J 9/12 or subgroups). This strict distinction is however not always respected in patents.
Foaming agent	Material that will decompose to release a gas under certain conditions (C08J 9/06 or subgroups)
Integral foams	Foams characterized by a dense or slightly expanded skin on a foamed core
Open cells foam or foam with open pores	Foam where more than 50% of the pores are open
Porogen	Compound which is removed after solidification of the polymer composition (C08J 9/26 , C08J 9/28)
Syntactic foams	Foams containing expandable and/or non expandable hollow particles (C08J 9/32)

Synonyms and Keywords

In patent documents the following expressions are often used as synonyms:

- Expandable compositions and expanded products are often regarded as similar and thus classified in the same subgroup.
- A foam composition is expandable or foamable.
- A foam (p)article can be porous cellular, expanded, foamed, pre- or post-foamed, pre- or post-expanded.
- A foam contains pores, cavities or cells, which can be closed, open or interconnected.
- A foam is porous, macroporous, microporous (1-100 microns diameter) or nanoporous (1-100 nanometers).
- The pores distribution can be for e.g. unimodal, bimodal or trimodal.
- Porous polymeric aerogels, organogels or xerogels can be regarded as foams.

C08J 9/127

{Mixtures of organic and inorganic blowing agents}

Special rules of classification

Mixtures of organic and inorganic blowing agents are classified in [C08J 9/127](#) and each blowing agent of the mixture is also classified according to its nature

C08J 9/16

Making expandable particles

Glossary of terms

In this place, the following terms or expressions are used with the meaning indicated:

The term "Expandable particles" covers also expanding, pre-expanded or expanded particles

C08J 9/22**After-treatment of expandable particles; Forming foamed products****Glossary of terms**

In this place, the following terms or expressions are used with the meaning indicated:

The term "Expandable particles" concerns also expanding, pre-expanded or expanded particles

C08J 9/236**using binding agents****Definition statement**

This place covers:

Expandable or expanded particles coated by a thin binding agent.

C08J 9/26**by elimination of a solid phase from a macromolecular composition or article, e.g. leaching out****References****Informative references**

Attention is drawn to the following places, which may be of interest for search:

Lithographic processes	G03F 7/00
------------------------	---------------------------

C08J 9/32**from compositions containing microballoons, e.g. syntactic foams (making microballoons [B01J 13/02](#))****Definition statement**

This place covers:

Foams containing expandable microspheres, as well as inorganic microspheres, microballoons or cenospheres.

References**Limiting references**

This place does not cover:

Foams dealing with expandable particles like expandable polystyrene	C08J 9/16 - C08J 9/24
Making microballoons	B01J 13/02

C08J 9/33

Agglomerating foam fragments, e.g. waste foam

Definition statement

This place covers:

Foam fragments in an unfoamed matrix.

C08J 9/35

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

Definition statement

This place covers:

Foam fragments in a foamed matrix.

C08J 11/00

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

Definition statement

This place covers:

Physical and chemical recycling of waste polymers with the purpose of recovering monomer(s), oligomer(s) and/or polymers with the purpose of making new polymers (same or different).

References

Limiting references

This place does not cover:

Mechanical treatments	B29
Polymerisation processes involving purification or recycling of waste polymers or their depolymerisation products	C08B , C08C , C08F , C08G , C08H

Informative references

Attention is drawn to the following places, which may be of interest for search:

Agglomerating foam fragments, e.g. waste foam	C08J 9/33
Collecting, recovering, recycling or eliminating the paint sludge from the washing liquid; Recovering or eliminating the paint sludge from washing liquid	B05B 16/00
Recovery of plastics or other constituents of waste material containing plastics, e.g. mechanical aspects of recycling	B29B 17/00
Layered products made from or containing mainly scrap material	B32B 2272/00
Layered products made of or containing mainly scrap material	B32B 2272/00
Use of waste materials, e.g. treated or untreated sewage sludge	C08K 11/005

Compositions of (unvulcanized) reclaimed rubber	C08L 17/00
Compositions of precrosslinked rubber or scrap rubber or used vulcanised rubber	C08L 19/003
Paint detackifiers or coagulants, e.g. for the treatment of oversprays in paint spraying installations	C09D 7/71
Chemical paint or ink removers	C09D 9/00- C09D 9/04

Special rules of classification

- The treatment of specific polymers is indicated using Indexing Codes of the group [C08J 2300/00-C08J 2399/00](#).
- When the presence of one or several additional polymers, present in minority, is of relevance, this additional polymer is specified using Indexing Codes of the group [C08J 2400/00-C08J 2499/00](#).

Example - Recycling of saturated polyesters is classified in [C08J 11/00](#) and [C08J 2367/02](#).

Synonyms and Keywords

In patent documents the following expressions/words are often used as synonyms in combination with the corresponding polymer:

"recycle(-ing)"; "reclaim(-ing)"; "discard(-ing)"; "recuperate(-ing)"; "rejuvenate(-ing)"; "reutilize(-ing)"; "regenerate(-ing)"; "salvage(-ing)"; "waste"; "scrap"; "recover(-ing)"; "reject(ed)"; "post-consumed".

C08J 11/02

of solvents, plasticisers or unreacted monomers

Definition statement

This place covers:

Cleaning or purifying waste polymers by removing residual monomers, solvents, plasticizers, and the like.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Treatment of polymeric surfaces with solvents or swelling agents	C08J 7/02
Post polymerisation treatment of polymer obtained by reactions involving carbon to carbon unsaturated bonds; Purification	C08F 6/00- C08F 6/28

Special rules of classification

Please see the Rules under [C08J 11/00](#).

C08J 11/04

of polymers

Definition statement

This place covers:

After-treatment of waste polymers involving mainly chemical modification of polymers, use of functional compatibilizers, and the like.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Chemical modification of membranes	B01D 67/0093
After treatment of addition polymers (obtained by reactions involving polymers obtained by reactions involving carbon to carbon unsaturated bonds; purification)	C08F 8/00 - C08F 8/50
After treatment of condensation/ polyaddition polymers	C08G 2/30 , C08G 59/14 , C08G 63/46 , C08G 63/91 , C08G 64/42 , C08G 65/32 , C08G 65/48 , C08G 69/48 , C08G 75/0286 , C08G 77/38 , C08G 85/004

Special rules of classification

Please see the Rules under [C08J 11/00](#).

C08J 11/06

without chemical reactions

Definition statement

This place covers:

Physical recovery or recycling of polymers.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Agglomerating foam fragments, e.g. waste foam	C08J 9/33
Recovery or recycling of polymers by mechanical means	B29B 17/00 - B29B 17/0412
Post polymerization treatment of polymers obtained by reactions involving carbon to carbon unsaturated bonds; Purification	C08F 8/06 - C08F 6/28
Compositions of (unvulcanized) reclaimed rubber	C08L 17/00
Compositions of scrap (vulcanized) rubber	C08L 19/003

Special rules of classification

Please see the Rules under [C08J 11/00](#).

C08J 11/08

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

Definition statement

This place covers:

Recovery, extracting or recycling of polymer components from a waste mixture using selective solvents.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Treatment of polymeric substrates with solvents or swelling agents	C08J 7/02
Working-up tar for by extraction with selective solvents	C10C 1/18
Working-up pitch, asphalt, bitumen by selective extraction	C10C 3/08

Special rules of classification

Please see the Rules under [C08J 11/00](#).

C08J 11/10

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

Definition statement

This place covers:

Depolymerization of waste polymers.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Depolymerisation to the original monomer	C07
Depolymerisation of halogenated hydrocarbon polymers	C07C 17/367
Depolymerisation of polyesters	(C07C 51/09 , C07C 63/26)
Depolymerisation of polyamides	C07D 201/12
Depolymerisation of rubber	C08C 19/08
Production of liquid hydrocarbon mixtures from rubber or rubber waste	C10G 1/10

Special rules of classification

Please see the Rules under [C08J 11/00](#).

C08J 11/105

{by treatment with enzymes}

Definition statement

This place covers:

Decomposing or depolymerizing of waste polymers with enzymes or microorganisms.

References**Informative references**

Attention is drawn to the following places, which may be of interest for search:

Processes for making harmful chemical substances harmless by biological methods, i.e. processes using enzymes or microorganisms	A62D 3/02
Preparation of polyesters of hydroxy-carboxylic acids by using microorganisms	C12P 7/625

Special rules of classification

Please see the Rules under [C08J 11/00](#).

C08J 11/12

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

Definition statement

This place covers:

Recovery or recycling of chemical compounds by thermal decomposition of waste polymers, e.g. by pyrolysis or incineration.

References**Limiting references**

This place does not cover:

Destructive distillation of carbonaceous materials for production of gas, coke, tar or similar matters	C10B
--	----------------------

Informative references

Attention is drawn to the following places, which may be of interest for search:

Destructive distillation of synthetic polymeric materials. e.g. tyres	C10B 53/07
Production of liquid hydrocarbon mixtures from rubber or rubber waste	C10G 1/10

Special rules of classification

Please see the Rules under [C08J 11/00](#).

Synonyms and Keywords

In patent documents, the following words/expressions are often used as synonyms:

- "pyrolysis", "incineration", "thermal decomposition" and "cracking" in combination with the corresponding polymer

C08J 11/14

by treatment with steam or water

Definition statement

This place covers:

Hydrolysis of waste polymers with water or steam or water in supercritical state.

Special rules of classification

Please see the Rules under [C08J 11/00](#).

Synonyms and Keywords

In patent documents, the following words/expressions are often used as synonyms:

- "hydrolysis" and "decomposition or depolymerization in water" in combination with the corresponding polymer

C08J 11/16

by treatment with inorganic material ([C08J 11/14](#) takes precedence)

Definition statement

This place covers:

Depolymerization of waste polymers using inorganic materials such as catalysts.

Special rules of classification

Please see the Rules under [C08J 11/00](#).

Group [C08J 11/14](#) takes precedence over group [C08J 11/16](#).

C08J 11/18

by treatment with organic material

Definition statement

This place covers:

Depolymerization of waste polymers with organic materials.

Special rules of classification

Please see the Rules under [C08J 11/00](#).

Synonyms and Keywords

In patent documents the following expression/word "solvolysis" is often used as a synonym in combination with the corresponding polymer.

C08J 11/20

by treatment with hydrocarbons or halogenated hydrocarbons

Definition statement

This place covers:

Depolymerisation of waste polymers with halogenated hydrocarbons.

C08J 11/22

by treatment with organic oxygen-containing compounds

Definition statement

This place covers:

Depolymerisation of waste polymers with oxygen containing compounds, e.g. peroxides.

Special rules of classification

Please see the Rules under [C08J 11/00](#).

C08J 11/24

containing hydroxyl groups

Definition statement

This place covers:

Depolymerisation of waste polymers by alcoholysis or glycolysis.

Special rules of classification

Please see the Rules under [C08J 11/00](#).

Synonyms and Keywords

In patent documents the following expressions/words are often used as synonyms in combination with the corresponding polymer:

"alcoholysis", "glycolysis."

C08J 11/26

containing carboxylic acid groups, their anhydrides or esters

Definition statement

This place covers:

Depolymerisation of waste polymers with organic compounds containing carboxylic acid groups, their anhydrides or esters.

Special rules of classification

Please see the Rules under [C08J 11/00](#).

C08J 11/28

by treatment with organic compounds containing nitrogen, sulfur or phosphorus

Definition statement

This place covers:

Depolymerisation of waste polymers with organic compounds containing nitrogen, sulphur or phosphorous; e.g. (cyclo)aliphatic amines, thiocarbamates, and the like.

Special rules of classification

Please see the Rules under [C08J 11/00](#).