C08C

TREATMENT OR CHEMICAL MODIFICATION OF RUBBERS

Definition statement

This place covers:

- Processes directed to natural rubber or to conjugated diene rubber.
- Treatment of diene rubber.
- Chemical modification of diene rubber, e.g. chemical reaction on the chain end after living polymerization.

Relationships with other classification places

Homopolymers or copolymers of dienes are classified in C08F 36/00, C08F 136/00 or C08F 236/00.

References

Informative references

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

Post-polymerisation treatment of addition polymers other than dienes	C08F 6/00
Chemical modification of addition polymers other than dienes	C08F 8/00
Preparation of living diene homopolymers or copolymers using anionic catalysts	C08F 36/04
Macromolecular compounds obtained by polymerising monomers on to polymers of monomers having two or more carbon-to-carbon double bonds as defined in group C08F 36/00, e.g. graft polymers	C08F 279/00
Macromolecular compounds obtained by interreacting polymers in the absence of monomers, e.g. block polymers or coupled polymers, in which one or more of the polymers is obtained by reactions involving only carbon-to-carbon unsaturated bonds	C08G 81/02
Compositions of natural rubber	C08L 7/00
Compositions of rubber derivatives, e.g. modified rubber	C08L 15/00
Compositions of rubbers not provided for in groups C08L 7/00 - C08L 17/00, e.g. rubber characterised by functional groups or telechelic diene polymers	C08L 19/00
Compositions of copolymers of ethene-propene or ethene-propene-diene, e.g. EPM or EPDM rubber	C08L 23/16
Compositions of copolymers of isobutene, e.g. with minor parts of conjugated dienes monomers; Butyl rubber; Homopolymers of copolymers of other iso-olefins	C08L 23/22
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, e.g. unconjugated diene polymers; Compositions of derivatives of such polymers	C08L 47/00

Glossary of terms

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

diene rubber	homopolymer or copolymer of compounds having as the major part one or more unsaturated aliphatic radicals, at least one having two or more carbon-to-carbon double bonds

Synonyms and Keywords

In patent documents, the following abbreviations are often used:

BR	Butadiene rubber
CR	Chloroprene rubber
EPM or EPDM	Ethene-propene or ethene-propene-diene rubber
IIR	Isobutylene isoprene rubber or butyl rubber
IR	Isoprene rubber
NBR	Nitrile butadiene rubber or acrylonitrile-butadiene rubber
NR	Natural rubber
SBR	Styrene butadiene rubber

C08C 1/00

Treatment of rubber latex

Definition statement

This place covers:

- Chemical or physical treatment of rubber latex before or during concentration, e.g. purifying, deproteinising, preserving or concentrating of rubber latex.
- Coagulation of rubber latex.

References

Informative references

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

Use of inorganic or non-macromolecular organic substances as compounding ingredients, e.g. preserving ingredients	C08K

C08C 2/00

Treatment of rubber solutions

Definition statement

This place covers:

Treatment of rubber solutions, e.g. by purification, removal of catalyst residues or winning of rubber from the rubber solutions.

C08C 3/00

Treatment of coagulated rubber

Definition statement

This place covers:

Treatment of coagulated rubber, e.g. by purification.

C08C 19/00

Chemical modification of rubber

Definition statement

This place covers:

Chemical modification of rubber after polymerisation, e.g. hydrogenation, oxidation, depolymerisation, isomerisation, cyclisation, incorporation of halogen, sulphur, nitrogen, phosphorus, silicon or metal atoms into the molecule, reaction with compounds containing carbon-to-carbon unsaturated bonds or addition of a reagent which reacts with a hetero atom or a group containing hetero atoms of the macromolecule.

References

Informative references

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

Use of inorganic or non-macromolecular organic substances as compounding ingredients, e.g. using crosslinking agents	C08K

Special rules of classification

In C08C 19/00 - C08C 19/44, the last place rule is not applied. A process is classified at all appropriate places.

C08C 19/44

of polymers containing metal atoms exclusively at one or both ends of the skeleton

Definition statement

This place covers:

Processes directed to the addition of a reagent which reacts with a hetero atom or a group containing heteroatoms of the macromolecule containing metal atoms exclusively at one or both ends of the macromolecule, e.g. chemical reaction on the chain end after living polymerisation.

Glossary of terms

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

heteroatoms	refers to atoms at the end of the macromolecular chain that are not carbon or hydrogen. Metals are also heteroatoms.