Rubber Auxiliaries

Kemarub Natural & Synthetic Rubber

Natural Rubber (NR)

The main types of NR are, for example: Technically Specified Rubber (TSR), Ribbed Smoked Sheets (RSS) and Standard Malaysian Rubber (SMR). Properties: Combines high strength (tear and tensile); Tack: can stick to itself and other materials; High resistance to chipping, cutting and tearing. End User Applications: Tyres; Seals; Footwear; Conveyor belts; Mouldings.

Polyisoprene Synthetic Rubber (IR)

Polyisoprene Synthetic Rubber (IR) has the same formula as NR. It has the same chemical structure as NR, with good uncured tack, high tensile strength and high resilience. IR is often used in blends with polybutadiene and styrene-butadiene rubber (SBR).

Properties

- Good uncured tack
- High gum tensile strength
- High resilience
- High consistency
- Good processability

End User Applications

- Tyres
- Conveyor belts
- Footwear
- Adhesives
- Rubber bands

Styrene-Butadiene Rubber (SBR)

Styrene-Butadiene Rubber (SBR) is composed from a copolymer of styrene and butadiene. It is a widely used general purpose rubber with a considerable range of applications.

Properties

- Good abrasion resistance
- Economical resin to bind pigmented coatings
- Durability
- Reduced shrinkage
- Flexible

End User Applications

- Conveyor belts
- Gaskets
- Chewing gum
- Alternative to PVA
- Basement waterproofing systems

Nitrile Rubber (NBR / HNBR)

Nitrile rubber (NBR) and HNBR, a hydrogenated version of NBR, are copolymers of butadiene and acrylonitrile which are produced by emulsion polymerisation. The introduction of acrylonitrile into the polymer backbone creates oil resistance.

Properties

- Oil resistant
- Good abrasion resistance
- Excellent heat and oxidation stability
- Improved wear resistance
- Low temperature flexibility

End User Applications

- Roll for steel paper mills
- Conveyor belts
- Safety shoe soles
- O-rings and seals
- Hoses

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Butyl Rubber (IIR / BIIR / CIIR)

Butyl Rubber, also known as (IIR) is prepared by copolymerising small amounts of isoprene with polyisobutylene. Bromobutyl (BIIR) and Chlorobutyl (CIIR) are modified types containing 1.2% of bromine or chlorine to enhance cure compatibility in blends with other rubbers.

Properties

- Outstanding resistance to oxygen and ozone
- Weather resistance
- Flame resistance
- Heat resistance
- Low gas and moisture permeability

End User Applications

- Inner tubes of tyres
- Pharmaceutical closures
- Hoses, seals and membranes
- Conveyor belts
- Ball bladders for sporting goods

Polybutadiene Rubber (BR) high and low CIS

Polybutadiene Rubber (BR) is a polymerised butadiene. It is the most elastic synthetic rubber. BR blends with other polymers, for example NR and SBR.

Properties

- Excellent elastic properties
- High wear and strength
- Strong abrasion resistance (good tread wear)
- Low rolling resistance (good fuel economy)
- Good resistance to low temperatures

End User Applications

- Tyres
- Conveyor belts
- Cable insulation
- Golf balls (elastic core)
- Super balls

Ethylene Propylene Rubber (EPR / EPDM)

Ethylene Propylene Rubber (EPR) and Ethylene Propylene Diene Monomer (EPDM) are forms of non-polar synthetic rubbers. They have both speciality and general-purpose applications.

Properties

- Excellent ozone and weather resistance
- Electrical resistor
- Very good resistance to heat and oxidation
- Colour stable
- Resistance to polar solvents

End User Applications

- Window and car seals
- Garden appliances and hoses
- Self-amalgamating tape
- Roofing membrane
- Electrical insulation

Thermoplastic Elastomer (TPE)

A Thermoplastic Elastomer (TPE) is a type of thermoplastic polymer. Although it has the performance and properties of rubber, it is processed like plastic and is recyclable. At room temperature, it can be repeatedly stretched to twice its length with the ability to return to its original size when the stress is released.

Properties

- Dense rubber
- Slip resistance
- Excellent weather resistance
- Ozone resistance
- Elastomeric properties at room temperature

End User Applications

- Automotive parts
- Wire and cable insulation
- Polymer modification
- Adhesives
- Heating, Ventilation and Air Conditioning (HVAC)

Rubber Compounding Ingredients

KEMAT can supply Titanium Dioxide as well as the major types of Carbon Black in the following grades:

- N115
- N121
- N220
- N234
- N299
- N326
- N330
- N339
- N237
- N375
- N539
- N550
- N650
- N660
- N772

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