

Technical information

Properties of basic elastomers

Designation		Areas of application	Properties	Resistance
NR	Natural Rubber	Standard quality for general technical and mechanical areas of application as well as technical items and consumer goods of all kinds	Very good elastic and mechanical properties Very good abrasion characteristics	Medium resistance to seawater, bases of medium concentration Not resistant to oil, acid, petrol and ozone
SBR	Styrene-Butadiene-Rubber	Standard quality for general technical and mechanical areas of application as well as technical items and consumer goods of all kinds	Good mechanical properties Excellent abrasion characteristics Good resistance to permanent deformation	> Good resistance to Freon, glycols and brake fluids
NRV	Natural rubber with wear protection	High-grade technical quality with very good elastic and mechanical properties and additional wear protection for increased abrasion resistance Standard quality for general technical and mechanical areas of application as well as technical items and consumer goods of all kinds	Very good elastic and mechanical properties High stretching ability Very good abrasion characteristics	Medium resistance to seawater, acids and bases of medium concentration Not resistant to oil, acid, petrol and ozone
NBR	Nitrile Butadiene Rubber	Resistant quality (particularly to oils) for medium to high stress Is used for seals, O-rings, valves, membranes, hoses, clutches, gas- and airtight	Good mechanical properties Excellent gas- and airtight Good abrasion resistance	Good resistance to oils, grease as well as fuels Good resistance to animal and vegetable fats as well as hydrocarbons and gases
EPDM	Ethylene-Propylene- Dien-Monomer	Resistant quality (particularly to weather and ozone) for medium to high stress Limited suitable for use in conjunction with most acids and alkaline solutions Suitable for seals, profiles, cable sheathing, weather-, heatproof and sea water resistant items	Good resistance to permanent deformation	Good resistance to water and glycols, aggressive chemicals and oxidation Very good resistance to steam of up to 150 °C, high temperatures and ozone Not resistant to oil, grease and petrol
ЕРМ	Ethylene-Propylene- Monomer	Resistant quality (particularly to weather and ozone) for medium to high stress Also suitable for use in conjunction with most acids and alkaline solutions Suitable for seals, profiles, cable sheathing, weather-, heatproof and sea water resistant items	Good resistance to permanent deformation	Good resistance to water and glycols, aggressive chemicals and oxidation Very good resistance to steam of up to 150 °C, high temperatures

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CR	Chloroprene Rubber	Resistant quality (particularly to weather and ozone) for medium to high stress Also suitable for use in conjunction with most acids, alkaline solutions and oils Used for the production of conveyor belts, seals, hoses, roller coatings, linings, window and building profiles, fan belts	› Good flame resistance › Self-extinguishing possible	› Good resistance to ozone and weather, Freon and seawater › Good resistance fats as well as to animal and vegetable fats › Light resistance and flame resistance
VMQ	Vinyl-Methyl- Polysiloxan (silicone)	Used for increased requirements Medical and pharmaceutical items Food hoses Seals used for medical equipment	Very good heat resistance Very good elasticity at low-temperatures Non-toxic when in contact with food products Very good electro- insulating properties	Good resistance to salt solution and water at 100 °C as well as weather and ozone resistant Good resistance to minerals, animal and vegetable fats, alcohols and glycols
PU	Polyurethane Rubber	 > Seals > Damping elements > Membranes > Pulley > Gear wheels > Rolls 	Excellent wear performance Exceptionally high tensile strength High elasticity	> Resistant to oxygen, ozone, mineral oil and fats
IIR	Isobutylene-Isoprene- Rubber	Car hoses Seals Membranes Rubberised fabric Steam hoses Cable insulation For application where low gas permeability and good heat as well as ageing resistance is required	Low gas permeability and low elasticity Good electrical insulating performance	Good weather and ozone resistance Particularly suited for aggressive chemicals, hot water and water vapour Good resistance to acids and alkalis Not resistant to oil, acid, petrol and ozone
FPM / FKM	Fluoro-Rubber	For special applications in the automotive as well as the aviation and space industry Seals, moulded parts and hoses with a load of up to 200 °C and/or in contact with lubricants, low flammable hydraulic fluids and aggressive chemicals	> Excellent chemical and thermal resistance to oil and solvents > High resistance to permanent deformation > Very good resistance to chlorinated aromatic and aliphatic solvents as well as fuels	Resistant to mineral oil as well as to animal and vegetable fats Very good resistance to chlorinated aromatic and aliphatic solvents as well as fuels
FFPM / FFKM	Perfluoro Rubber	> For special applications in the automotive as well as the aviation and space industry	Excellent chemical indifference May be used under extreme conditions Very good heat resistance of up to 320 °C	> Excellent chemical resistance > Temperature resistance of up to 350 °C for a limited time

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