

# MATERIALS PROPERTIES



INTERNATIONAL CLASSIFICATION	CHEMICAL DESCRIPTION	TEMPERATURE SERVICES	HARDNESS A (MINI.-MAXI.)	PROPERTIES	CHEMICAL RESISTANCE
EPDM	Ethylene Propylene Terpolymer	-45°C /+150°C (Perox +180°C)	40 ÷ 90 Available color: Various Colors	Excellent resistance to heat, ozone, high temperatures, permanent deformation, water and steam up to 150 °C.	Good resistance to water, glycols, to chemicals, oxidation, steam up to 150 ° C ( Perox up to 160 ° C ).
CR	Polychloroprene	-40°C /+110°C	40 ÷ 90 Available color: black	Good resistance to ozone, sea water, the fire (with the possibility of self-extinguishing), animal fats and vegetable oils.	Good resistance to acids, ozone, sunlight, weathering, flame, and different types of freon.
NBR	Butadiene-acrylonitrile copolymer	-40°C /+130°C	30 ÷ 90 Available color: Various Colors	Good oil resistance, good physical and mechanical properties, good impermeability to air and gas.	Good resistance to oils, vegetable and animal fat, hydrocarbons and gases.
HNBR	Hydrogenated Nitrile	-40°C /+150°C	45 ÷ 90 Available color: black/yellow	Excellent physical and mechanical properties, excellent resistance to temperatures of 150°C. Very high resistance to deformation and abrasion.	Good resistance to oils, vegetable and animal fat, hydrocarbons and gases, and some types of freon.
EU	Polyether urethane rubber	-30°C /+100°C	40 ÷ 70 Available color: black	Excellent resistance to abrasion and tearing. Good mechanical properties (tensile strength and elongation); good impermeability to air, a lot of gas and to the hydrolysis.	Good resistance to hydrolysis, saline solutions, and sea water.
VMQ	Polydimethylsiloxane vinyl functionalized	-40°C /+200°C	30 ÷ 80 Available color: various colors	Good resistance to heat, flexibility maintenance at low temperature, not toxic for food substances. Good electro-insulating properties.	Good resistance in water and saline solutions until 100°C; to exposition at weather, ozone, animal and vegetal oils, alcohols and glycols.
FPM/FKM	Ter-co-tetra fluorocarbon polymers	-40°C /+250°C	60 ÷ 85 Available color: Various Colors	Excellent resistance to aging, heat; chemical inertness to a lot of substances. good resistance to permanent deformation.	Good resistance to oils and fats mineral/vegetable and animal, to aliphatic hydrocarbons, chlorinated, aromatic and fuels.
LSR	Liquid Silicon	-60°C /+280°C	10 ÷ 82 Available color: Various Colors	Good resistance to heat, maintenance to flexibility at low temperature, no toxic for contact with food stuff, very good electro-insulating characteristic.	Good resistance in water and saline solutions until 100°C, to high temperature, thermal stability from -60°C to +230°C (the technical, electric and mechanic properties won't change). Flexibility at low temperature, resistance to weather and aging. excellent electrical insulation, nonstick and elasticity.

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