

Datenblatt | Data sheet

Rubber materials

Material	CR	EPDM	FPM	NBR	NR	PUR	SBR	Silikon
Name	Polychloroprene elastomer	Ethylene-propylene-diene rubber	Fluorocarbon	Nitrile rubber / Perbunan	Natural rubber	Polyurethane rubber	Styrene-butadiene rubber	Polysiloxane
Alternative name(s)	Neopren®, Baypren	Buna-EP	Viton	Buna-N, Nitrile	Latex		Buna-S	
Hardness Shore A	60 - 80	75 - 90	70 - 90	75 - 90	40 - 80	50 - 95	50 - 95	25 - 90
Density g/cm³	1,36	1,2	1,84	1,2 - 1,4	1,32	1,28	1,23	1,2
Operating temperature °C	-30 - 100	-30 - 130	-18 - 200	-50 - 80	-50 - 80	-20 - 80	-50 - 90	-65 - 180
Break load in traction MPa	10 - 25	11 - 15	7 - 21	15 - 20	10 - 25	8 - 45	5 - 20	8 - 12
Available mit								
Diameter (mm)	2 - 152,4	1 - 152,4	1 - 152,4	1 - 152,4	2 - 152,4	1 - 152,4	4,75 - 150	1 - 152,4
Diameter (in)	3/32 - 6	3/64 - 6	3/64 - 6	3/64 - 6	3/32 - 6	3/64 - 6	3/16 - 5 ¼	3/64 - 6
Precision grade	III	III	III	III	III	III	III	III
Description	Good mechanical properties, good impact and abrasion resistance. Very weather resistant, excellent UV resistance, low flammability. Very good adhesion to metals. Neopren® is a registered trademark of the Dupont Company.	Good resistance to heat, aging, atmospheric phenomena and UV rays, as well as good behavior at low temperatures. They are also available with peroxide crosslinking agent.	Excellent resistance to corrosion, aging and high temperatures. Very well suited for sealing applications. Flammable compounds.	Good resistance to wear, abrasion, heat and compression. Excellent compatibility when in contact with plastic. Low aging resistance. Soft material, therefore limited tolerances.	Elastomeric polymer obtained from the rubber tree (Hevea Brasiliensis). Good mechanical properties and strength against abrasion, friction, compression and low temperatures. Not optimal resistance to UV rays	Exhibit very good mechanical properties and high resistance to wear, tear and impact, and also have good elasticity. Good resistance to radiation and atmospheric phenomena.	With good mechanical properties and excellent abrasion and wear resistance, as well as resistance to permanent deformation. Limited resistance to weathering and aging.	Wide temperature range, very high elasticity. Resistant to weathering and radiation. Used both as electrical insulators and as electrical conductors. Not good mechanical properties and wear resistance.

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Field of application	Pumps and safety valves (as sealing element), pneumatic and hydraulic applications.	Industrial applications almost always as a sealing and floating element. Environmental devices and applications exposed to weathering.	Pumps and safety valves (as a sealing element), pneumatic and hydraulic applications.	Pumps and safety valves (as a sealing element), pneumatic and hydraulic applications.	High quality sealing elements, especially when in contact with metals. They are generally used in various types of pumps and valves. Likewise, they are used in the toys and sports sector (golf balls).	Special bearings, air pumps, applications requiring good elastic properties combined with high toughness.	Special pumps and valves as sealing elements, automotive industry, mixing devices.	Applications at high and low temperatures for which constant elastic properties are required. Use in the food, automotive and medical sectors. Very good sealing elements.
Resistant to	Contact with sea water, in dilute acids and bases, cooling liquids, ammonia, ozone. Good resistance in contact with fresh and salt water and alkali. Sufficient resistance to mineral oils and aliphatic hydrocarbons, steam.	Water, steam, ozone, alkalis, alcohols, ketones, esters, glycols, salt solutions and substances with oxidizing effect, weak acids, detergents and many organic and inorganic bases.	All types of mineral liquids and lubricants, hydrocarbons, methanol-containing fuels, many dilute acids, bases and salt solutions, silicones, plants and animals at ambient temperature. Also in air/oxygen/ozone and in aqueous environments/steam.	Contact with hydraulic fluids, lubricating oils, transmission fluids, non-polar petroleum products, aliphatic hydrocarbons, many dilute acids, bases and salt solutions at ambient temperature. Resistant also to air and aqueous environments.	Good strength in contact with water, dilute acids and bases, alcohols. Satisfactory in contact with ketones. Low strength in contact with steam, oils, gasoline and aromatic hydrocarbons, oxygen and ozone.	Good strength in contact with nitrogen, oxygen, ozone, mineral oils and greases, aliphatic hydrocarbons and diesel oil.	Contact with water, sufficient resistance in contact with alcohols, ketones, glycols, brake fluids, diluted acids and bases	Good strength in contact with (even warm) water, oxygen, ozone, hydraulic fluids, animal and vegetable oils and greases, dilute acids.
Unresistant to	Contact with strong acids and bases, aromatic hydrocarbons, polar solutions, esters and ketones.	Gasoline, diesel oil, greases, mineral oils and aliphatic, aromatic and chlorinated hydrocarbons.	Superheated water vapor and low molecular weight organic acids, polar solutions, glycols, ammonia gases, amines and alkalis.	Aromatic or chlorinated hydrocarbons or polar solutions, ozone, ketone, esters, aldehydes.		Hot water and steam, acids and alkalis.	Oils and greases, aliphatic and aromatic hydrocarbons, petroleum products, esters, ethers, oxygen, ozone, strong acids and bases	Strong acids and bases, mineral oils and greases, alkalis, aromatic hydrocarbons, ketones, petroleum products, polar solvents.

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