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Rubber ball NR

Balls made of elastomer polymer obtained from the rubber tree (Hevea Brasiliensis). They have good mechanical properties and strength against abrasion, friction, compression and low temperatures. No optimal resistance to UV rays.

Field of application

High quality sealing elements, especially in contact with metals. They are generally used in various types of pumps and valves. They are also used in the toys and sports sector (golf balls).

Corrosion resistance

Good resistance 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.

Material

Technical name	Alternative name	Abbreviation
Polyisoprene	Latex	NR

Physical / mechanical / thermal / electrical / magnetic characteristics

Characteristic	Symbol	Unit	Type	Note	Value
Density	δ	g/cm^3	Physical	Environmental temp.	1,32
Modulus of elasticity	E	MPa	Mechanical	-	5
Elongation at break	A	%	Mechanical	Environmental temp.	≤ 700
Compression set	-	%	Mechanical	Environmental temp.	20
Coefficient of friction	μ	-	Mechanical	Environmental temp.	0,85
Linear coefficient of thermal expansion	α	$10^{-6}/°C$	Thermal	(ΔT = 0 - 100°C)	180
Thermal conductivity	λ	W/(m*K)	Thermal	Environmental temp.	0,14
Electrical resistivity	ρ	$Ω*mm^2/m$	Electrical	-	$> 10^{19}$
Relative magnetic permeability	μ	-	Magnetic	Diamagnetic	< -1

Technical characteristics

Characteristic	Type	Unit	Type	Unit	Value
Hardness	Mechanical	Shore A	40 - 80	-	-
Break load in traction	Mechanical	MPa	10 - 25	$psi * 10^3$	1,45 - 3,63
Operating temperature	Thermal	° C	-50 - 80	° F	-58 - 176

Available with

Diameter min/max (mm)	Diameter min/max (in)	Precision grade	Hardness
2,000 - 152,400	3/32 - 6	III	40 - 50 / 50 - 65 / 65 - 75 / 70 - 80 Shore A

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