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Rubber ball SBR

Styrene-butadiene copolymer ball with good mechanical properties and excellent abrasion and wear resistance as well as resistance to permanent deformation. Limited resistance to weathering and aging.

Field of application

Special pumps and valves as sealing elements, automotive industry, mixing devices.

Corrosion resistance

Stable: In contact with water, adequate resistance in contact with alcohols, ketones, glycols, brake fluids, dilute acids and bases.

Unstable: To oils and greases, aliphatic and aromatic hydrocarbons, petroleum products, esters, ethers, oxygen, ozone, strong acids and bases

Material

Technical name	Alternative name	Abbreviation
Styrol-Butadiene	Buna-S	SBR

Physical / mechanical / thermal / electrical / magnetic characteristics

Characteristic	Symbol	Unit	Type	Note	Value
Density	δ	g/cm^3	Physical	Environmental temp.	1,23
Modulus of elasticity	E	MPa	Mechanical	-	6
Elongation at break	A	%	Mechanical	Environmental temp.	≤ 700
Compression set	-	%	Mechanical	Environmental temp.	25
Coefficient of friction	μ	-	Mechanical	Environmental temp.	0,82
Linear coefficient of thermal expansion	α	$10^{-6}/°C$	Thermal	(ΔT = 0 - 100°C)	180
Thermal conductivity	λ	W/(m*K)	Thermal	Environmental temp.	0,17
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	50 - 95	-	-
Break load in traction	Mechanical	MPa	5 - 20	$psi * 10^3$	0,73 - 2,90
Operating temperature	Thermal	° C	-50 - 90	° F	-58 - 194

Available with		
Diameter min/max (mm)	Diameter min/max (in)	Precision grade
4,750 - 150,000	3/16 - 5 ¾	III

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