

# Datenblatt | Data sheet

## Rubber ball PUR

High-performance balls made of polyurethane elastomers. They have very good mechanical properties and high wear, tear and impact resistance, as well as good elasticity. Good resistance to radiation and atmospheric phenomena.

### Field of application

Special bearings, air pumps, applications requiring good elastic properties combined with high toughness.

### Corrosion resistance

Good strength in contact with nitrogen, oxygen, ozone, mineral oils and greases, aliphatic hydrocarbons and diesel oil. They are attacked by hot water and steam, acids and alkalis.

### Material

Technical name	Alternative name	Abbreviation
Polyurethane rubber	-	PUR / PU

### Physical / mechanical / thermal / electrical / magnetic characteristics

Characteristic	Symbol	Unit	Type	Note	Value
Density	$\delta$	g/cm <sup>3</sup>	Physical	Environmental temp.	1,28
Modulus of elasticity	E	MPa	Mechanical	-	100
Elongation at break	A	%	Mechanical	Environmental temp.	≤ 750
Compression set	-	%	Mechanical	Environmental temp.	11
Coefficient of friction	$\mu$	-	Mechanical	Environmental temp.	0,80
Linear coefficient of thermal expansion	$\alpha$	10 <sup>-6</sup> /°C	Thermal	( $\Delta T = 0 - 100^\circ C$ )	180
Thermal conductivity	$\lambda$	W/(m*K)	Thermal	Environmental temp.	0,25
Electrical resistivity	$\rho$	$\Omega \cdot mm^2/m$	Electrical	-	> 10 <sup>8</sup>
Relative magnetic permeability	$\mu$	-	Magnetic	Diamagnetic	< -1

### Technical characteristics

Characteristic	Type	Unit	Type	Unit	Value
Hardness	Mechanical	Shore A	50 - 95	-	-
Break load in traction	Mechanical	MPa	8 - 45	psi * 10 <sup>3</sup>	1,16 - 6,53
Operating temperature	Thermal	° C	-20 - 80	° F	- 4 - 176

### Available with

Diameter min/max (mm)	Diameter min/max (in)	Precision grade	Hardness
1,000 - 152,400	3/64 - 6	III	50 - 60 / 65 - 75 / 70 - 80 / 80 - 90 / 85 - 95 / Shore A