

# PUR - 90 SHORE A

## POLYURETHANE

### Material description

PUR is a plasticiser-free elastomer produced in a casting process. It is available in 70, 80 and 90 Shore A hardness classes. Its outstanding properties include high flexibility, abrasion resistance and tensile strength. PUR can be used over a wide temperature range without any loss of its mechanical properties. PUR is not resistant to hydrolysis and changes colour when exposed to the weather.

### Conformities

RoHS, REACH

Physical properties	Test method	Value	Unit
Density	DIN EN ISO 1183-1	1.25	g/cm <sup>3</sup>
Water absorbtion	DIN EN ISO 62	0.2	%
Sliding friction		○	
Abrasion resistance		◐	
Mechanical properties	Test method	Value	Unit
Yield stress	DIN EN ISO 527	7	MPa
Elongation at break	DIN EN ISO 527	>300	%
Tensile modulus of elasticity	DIN EN ISO 527	294	MPa
Notched impact strength	DIN EN ISO 527	ohne Bruch	kJ/m <sup>2</sup>
Thermal properties	Test method	Value	Unit
Thermal conductivity	DIN 52612-2	0.19	W/(m*K)
Heat capacity	DIN 52612-1	1.69	kJ/(kg*K)
Coefficient of thermal expansion	DIN 53752	200	10 <sup>-6</sup> *K <sup>-1</sup>
Operating temperature short term		100	°C
Operating temperature long term		- 30 bis 80	°C
Electrical properties	Test method	Value	Unit
Volume resistivity	IEC 60093	10 <sup>13</sup>	Ω * cm

These technical data have been determined as average values by our suppliers from many individual measurements. In all measurements, the test specimens were tested in the dry state. We pass on the data with reservation. The table does not claim to be complete or correct. Material technology is subject to constant further development. No rights or guarantees can be derived from it. Own tests are necessary because the environmental and operating conditions (humidity, temperature, mechanical forces, radiation and chemicals, etc.) set limits in the application.