

Polystone® P homopolymer

Product characteristics

- High strength
- High weldability
- Excellent chemical and corrosion resistance

Typical field of application

- Chemical engineering and tank building
- Ventilation and equipment manufacturing
- Pump engineering

	Test method	Unit	Value
General properties			
Density	DIN EN ISO 1183-1	g/cm ³	0,905
Water absorption	DIN EN ISO 62	%	<0,1
Flammability (Thickness 3 mm / 6 mm)	UL 94		HB
Mechanical properties			
Yield stress	DIN EN ISO 527	MPa	32
Elongation at yield stress	DIN EN ISO 527	%	10
Elongation at break	DIN EN ISO 527	%	>50
Tensile modulus of elasticity	DIN EN ISO 527	MPa	1300
Notched impact strength (charpy)	DIN EN ISO 179	kJ/m ²	4
Shore hardness	DIN EN ISO 868	scale D	72
Thermal properties			
Melting temperature	ISO 11357-3	°C	162 – 167
Thermal conductivity	DIN 52612-1	W / (m * K)	0,20
Thermal capacity	DIN 52612	kJ / (kg * K)	1,70
Coefficient of linear thermal expansion	DIN 53752	10 ⁻⁶ K ⁻¹	120-190
Service temperature, long term	Average	°C	0 ... 100
Service temperature, short term (max.)	Average	°C	150
Heat deflection temperature	DIN EN ISO 306, Vicat B	°C	90
Electrical properties			
Dielectric constant	IEC 60250		2,4
Dielectric dissipation factor (10 ⁶ Hz)	IEC 60250		0,00019
Volume resistivity	IEC 60093	Ω *cm	>10 ¹⁴
Surface resistivity	IEC 60093	Ω	>10 ¹⁴
Comparative tracking index	IEC 60112		600
Dielectric strength	IEC 60243	kV/mm	45

The data mentioned in this brochure are average values ascertained by current statistical returns and tests. The data above are provided purely for information and shall not be regarded as binding unless expressly agreed in a contract of sale.