

Technical Data Sheet

Polystone[®] M Saphir blue extruded

PE-UHMW / PE 1000

Typical characteristics

- No moisture absorption
- Smooth surface
- Good wear properties

Typical industries

- Mechanical Engineering Industry
- Bulk Material Handling
- Conveyor Technology & Automation
- Food Industry
- Meat, Fish and Poultry Processing

	Test method	Unit	Guideline value
General properties			
Density	DIN EN ISO 1183-1	g / cm ³	>0,93
Water absorption	DIN EN ISO 62	%	<0,01
Flammability (Thickness 3 mm / 6 mm)	UL 94		HB
Molecular weight	-	10 ⁶ g/mol	~ 10
Mechanical properties			
Yield stress	DIN EN ISO 527	MPa	>18
Elongation at break	DIN EN ISO 527	%	>50
Tensile modulus of elasticity	DIN EN ISO 527	MPa	>600
Notched impact strength	DIN EN ISO 11542	kJ / m ²	>130
Shore hardness	DIN EN ISO 868	scale D	>60
Wear resistance	Sand-slurry		<80
Thermal properties			
Melting temperature	ISO 11357-3	°C	130 ... 135
Thermal conductivity	DIN 52612-1	W / (m * K)	0,40
Thermal capacity	DIN 52612	kJ / (kg * K)	1,90
Coefficient of linear thermal expansion	DIN 53752	10 ⁻⁶ / K	150 ... 230
Service temperature, long term	Average	°C	-250 ... 80
Service temperature, short term (max.)	Average	°C	130



	Test method	Unit	Guideline value
Vicat softening temperature	DIN EN ISO 306, Vicat B	°C	79
Electrical properties			
Dielectric constant	IEC 60250		2,3
Dielectric dissipation factor (10 ⁶ Hz)	IEC 60250		0,0001
Volume resistivity	DIN EN 62631-3-1	Ω * cm	>10 ¹⁴
Surface resistivity	DIN EN 62631-3-2	Ω	>10 ¹⁴
Comparative tracking index	IEC 60112		600
Dielectric strength	IEC 60243	kV / mm	>40

