Röchling

Industrial

Technical Data Sheet

Polystone® M sapphire

Product characteristics

- Extremely abrasion and wear resistance
- No moisture absorption
- Smooth surface

Product applications

- Mechanical engineering
- Beverage and food industry
- Packaging industry

	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
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

The data stated above are average values ascertained by statistical tests on a regular basis. They are in accordance with DIN EN 15860. The data above are provided purely for information and shall not be regarded as binding unless expressly agreed in a contract of sale.

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INTEGRATED MANAGEMENT SYSTEM