

## Polystone® D black nuclear

### Product characteristics

- Shielding against neutron radiation
- Excellent mechanical properties

### Typical field of application

- Electrical and electronic industries

	Test method	Unit	Value
<b>General properties</b>			
Density	DIN EN ISO 1183-1	g/cm <sup>3</sup>	1,06
Water absorption	DIN EN ISO 62	%	<0,01
Flammability (Thickness 3 mm / 6 mm)	UL 94		HB
<b>Mechanical properties</b>			
Yield stress	DIN EN ISO 527	MPa	18
Elongation at break	DIN EN ISO 527	%	7
Tensile modulus of elasticity	DIN EN ISO 527	MPa	1450
Notched impact strength (charpy)	DIN EN ISO 179	kJ/m <sup>2</sup>	no break
Shore hardness	DIN EN ISO 868	scale D	70
<b>Thermal properties</b>			
Melting temperature	ISO 11357-3	°C	133 - 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 <sup>-6</sup> K <sup>-1</sup>	150-230
Service temperature, long term	Average	°C	-100 ... 80
Service temperature, short term (max.)	Average	°C	100
Heat deflection temperature	DIN EN ISO 306, Vicat B	°C	79
<b>Electrical properties</b>			
Dielectric constant	IEC 60250		2,5
Dielectric dissipation factor (10 <sup>6</sup> Hz)	IEC 60250		-
Volume resistivity	IEC 60093	Ω *cm	>10 <sup>14</sup>
Surface resistivity	IEC 60093	Ω	>10 <sup>14</sup>
Comparative tracking index	IEC 60112		600
Dielectric strength	IEC 60243	kV/mm	15

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.