Technical Data Sheet

Polystone® D nuclear black

PE-HD / PE 500

Typical characteristics

- Shielding against neutron radiation
- Good mechanical properties

Typical industries

- Nuclear Industry

	Test method	Unit	Guideline value
General properties			
Density	DIN EN ISO 1183-1	g / cm^3	>1,05
Flammability (Thickness 3 mm / 6 mm)	UL 94		HB
Boron content	Elemental analysis	% by weight	>5
Mechanical properties			
Yield stress	DIN EN ISO 527	MPa	>20
Tensile modulus of elasticity	DIN EN ISO 527	MPa	>1400
Shore hardness	DIN EN ISO 868	scale D	67
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	-100 ... 80
Service temperature, short term (max.)	Average	°C	100
Vicat softening temperature	DIN EN ISO 306, Vicat B	°C	79
Electrical properties			
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

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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