Röchling

Industrial

Technical Data Sheet

Polystone® G B 100 RC + GK black

PE-HD (PE 100)

Typical characteristics

- Good stress cracking resistance
- Chemical resistant
- Suitable for contact with drinking water

Typical industries

- Chemical Processing Industry
- Chemical storage tanks

	Test method	Unit	Guideline value
General properties			
Density	DIN EN ISO 1183-1	g / cm^3	>0,96
Water absorption	DIN EN ISO 62	%	<0,01
Flammability (Thickness 3 mm / 6 mm)	UL 94		HB
Non-toxicity			+
MRS classification	ISO TR 9080		PE 100
Approval			DIBt
Melt Flow Rate (MFR 190/5)	DIN EN ISO 1133	g / 10 min	0,22
Moulding Compound PE	DIN ISO 1872-1		PE-EACH-50T003
Mechanical properties			
Yield stress	DIN EN ISO 527	MPa	>23
Elongation at break	DIN EN ISO 527	%	>50
Tensile modulus of elasticity	DIN EN ISO 527	MPa	>1100
Notched impact strength	DIN EN ISO 179	kJ / m^2	>16
Shore hardness	DIN EN ISO 868	scale D	63
FNCT (4.0 MPa, 2 % Arkopal N 100, 80 °C)	ISO 16770	h	>8760
Tensile Strength (23°C)	ASTM D1457	N/mm^2	<4
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

	Test method	Unit	Guideline value
Coefficient of linear thermal expansion	DIN 53752	10^{-6} / K	150 ... 230
Service temperature, long term	Average	°C	-50 ... 80
Service temperature, short term (max.)	Average	°C	100
Vicat softening temperature	DIN EN ISO 306, Vicat B	°C	67
Electrical properties			
Dielectric constant	IEC 60250		2,5
Dielectric dissipation factor (10^6 Hz)	IEC 60250		0,0004
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
Arc resistance	IEC 60093	degree	L4 (*)
Dielectric strength	IEC 60243	kV / mm	30