

POLYSTONE® G black B 100

High Density Polyethylene

Röchling Engineering Plastics SE & Co. KG

Message:

Product characteristics

High welding and processing properties

High chemical resistance

Suitable for contact with drinking water

Approval: DIBt

Typical field of application

Chemical engineering and tank building

Drinking and waste water technology

Bottling and food industry

General Information			
Features	Good Chemical Resistance		
	Good Processability		
	Non-Toxic		
	Weldable		
Uses	Bottles		
	Food Service Applications		
	Potable Water Applications		
	Sanitary Products		
	Tanks		
Agency Ratings	PPI PE-100		
Appearance	Black		
Physical	Nominal Value	Unit	Test Method
Density	0.960	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (190°C/5.0 kg)	0.22	g/10 min	ISO 1183
Water Absorption (Equilibrium, 23°C, 50% RH)	< 0.010	%	ISO 62
Hardness	Nominal Value	Unit	Test Method
Shore Hardness (Shore D)	63		ISO 868
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1000	MPa	ISO 527-2
Tensile Stress (Yield)	24.0	MPa	ISO 527-2
Tensile Strain			ISO 527-2
Yield	10	%	
Break	> 50	%	
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength	> 16	kJ/m ²	ISO 179

Thermal	Nominal Value	Unit	Test Method
Continuous Use Temperature			
-- 1	-50.0 to 80.0	°C	
-- 2	< 100	°C	
Melting Temperature	135	°C	ISO 11357-3
CLTE - Flow	1.5E-4 to 2.3E-4	cm/cm/°C	DIN 53752
Specific Heat	1900	J/kg/°C	DIN 52612
Thermal Conductivity	0.40	W/m/K	DIN 52612
Heat Deflection Temperature - Vicat B	67	°C	ISO 306
Arc Resistance	L4 degree		IEC 60093
Material Designation	PE-EACH-50T003		ISO 1872
MRS Classification	PE100		ISO TR 9080
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.0E+14	ohms	IEC 60093
Volume Resistivity	> 1.0E+14	ohms·cm	IEC 60093
Electric Strength	45	kV/mm	IEC 60243-1
Dielectric Constant	2.50		IEC 60250
Dissipation Factor (1 MHz)	4.0E-4		IEC 60250
Comparative Tracking Index	600	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
3.00 mm	HB		
6.00 mm	HB		
NOTE			
1.	Long Term		
2.	Short Term		

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