

POLYSTONE® M black

Ultra High Molecular Weight Polyethylene

Röchling Engineering Plastics SE & Co. KG

Message:

Product characteristics

High abrasion and wear resistance

Low coefficient of friction

High impact strength

Typical field of application

Bottling and food industry

Mechanical engineering

Bearing and packing industry

General Information			
Features	Low friction coefficient		
	Impact resistance, high		
	Good wear resistance		
	Good wear resistance		
Uses	Engineering application		
	Bottle		
	Food service sector		
Appearance	Black		
Physical	Nominal Value	Unit	Test Method
Density	0.940	g/cm ³	ISO 1183
Water Absorption (Equilibrium, 23°C, 50% RH)	< 0.010	%	ISO 62
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D)	63		ISO 868
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	700	MPa	ISO 527-2
Tensile Stress (Yield)	21.0	MPa	ISO 527-2
Tensile Strain (Break)	> 50	%	ISO 527-2
Wear Resistance - Sand-slurry method	80.0		
Heat Deflection Temperature - Vicat B	79	°C	ISO 306
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength	No Break		ISO 179
Thermal	Nominal Value	Unit	Test Method
Continuous Use Temperature ¹	< 130	°C	
Melting Temperature	135	°C	ISO 11357-3
CLTE - Flow	1.5E-4 - 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
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.0E+12	ohms	IEC 60093
Volume Resistivity	> 1.0E+13	ohms·cm	IEC 60093
Dielectric Strength	30	kV/mm	IEC 60243-1
Dielectric Constant	2.30		IEC 60250
Dissipation Factor (1 MHz)	1.0E-4		IEC 60250
Comparative Tracking Index	600	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
3.00 mm	HB		UL 94
6.00 mm	HB		UL 94
Additional Information			
Service Temperature (Long Term): -250 to 80°C			
NOTE			
1.	Short Term		

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