

Technical Information



SOLARKOTE™ PB

Overview

SOLARKOTE™ PB is a thermoplastic acrylic powder formulated for building and construction applications. It is characterized by its ability to be blended with PVC. It is available in powder form only.

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.15 g/cm ³	1.15 g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (230°C/3.8 kg)	2.0 g/10 min	2.0 g/10 min	ISO 1133
Molding Shrinkage - Flow	3.0E-3 to 8.0E-3 in/in	0.30 to 0.80 %	ASTM D955
Water Absorption			ISO 62
Equilibrium, 73°F (23°C), 50% RH	0.40 %	0.40 %	
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	265000 psi	1830 MPa	ASTM D638
Tensile Stress (Break, 73°F (23°C))	5510 psi	38.0 MPa	ISO 527-2
Tensile Strain (Break, 73°F (23°C))	50 %	50 %	ISO 527-2
Flexural Modulus (73°F (23°C))	252000 psi	1740 MPa	ISO 178
Flexural Stress (73°F (23°C))	8120 psi	56.0 MPa	ISO 178
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact Strength (73°F (23°C))	2.8 ft·lb/in ²	5.8 kJ/m ²	ASTM D256
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Rockwell Hardness (M-Scale)	38	38	ASTM D785
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			
66 psi (0.45 MPa), Unannealed	192 °F	89.0 °C	ISO 75-2/B
264 psi (1.8 MPa), Unannealed	172 °F	78.0 °C	ISO 75-2/A
Vicat Softening Temperature			
--	181 °F	83.0 °C	ISO 306/B
--	199 °F	93.0 °C	ISO 306/A
Thermal Conductivity	1.4 Btu·in/hr/ft ² /°F	0.20 W/m/K	ASTM C177
Optical	Nominal Value (English)	Nominal Value (SI)	Test Method
Refractive Index ¹	1.490	1.490	ISO 489
Light Transmittance	90.0 %	90.0 %	ASTM D1003
Haze	2.00 %	2.00 %	ASTM D1003

Notes

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

¹ Method B

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