

Technical Information



SOLARKOTE™ H300

Overview

SOLARKOTE™ H300 is an impact modified specialty grade thermoplastic acrylic resin formulated for capstock coextrusion. It is characterized by high melt flow with excellent processability and weatherability. Key applications include building & construction and custom sheet markets. Primarily used as cap layer for HIPS, PVC, PVDF and other composite substrates.

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.15 g/cm ³	1.15 g/cm ³	ASTM D792 ISO 1183
Melt Mass-Flow Rate (MFR)			
230°C/3.8 kg	6.7 g/10 min	6.7 g/10 min	ASTM D1238
230°C/3.8 kg	5.0 g/10 min	5.0 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			
24 hr	0.40 %	0.40 %	ASTM D570
Equilibrium, 73°F (23°C), 50% RH	0.40 %	0.40 %	ISO 62
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	250000 psi	1720 MPa	ASTM D638
Tensile Strength			
Yield	4500 psi	31.0 MPa	ASTM D638
Break	4640 psi	32.0 MPa	ISO 527-2
Tensile Elongation			
Break	53 %	53 %	ASTM D638
Break	35 %	35 %	ISO 527-2
Flexural Modulus			
--	250000 psi	1720 MPa	ASTM D790
--	249000 psi	1720 MPa	ISO 178
Flexural Stress			
--	7980 psi	55.0 MPa	ISO 178
Yield	7700 psi	53.1 MPa	ASTM D790
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact			
73°F (23°C)	1.1 ft-lb/in	59 J/m	ASTM D256
--	0.023 ft-lb/in ²	0.048 kJ/m ²	ISO 180/1A
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Rockwell Hardness (M-Scale)	20	20	ASTM D785
Pencil Hardness	F-2H	F-2H	ASTM D3363
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			
66 psi (0.45 MPa), Annealed ¹	183 °F	83.9 °C	ASTM D648
264 psi (1.8 MPa), Unannealed	165 °F	74.0 °C	ISO 75-2/A
264 psi (1.8 MPa), Annealed ¹	171 °F	77.2 °C	ASTM D648
Vicat Softening Temperature			
--	200 °F	93.3 °C	ASTM D1525 ²
--	177 °F	80.6 °C	ASTM D1525 ³
--	171 °F	77.0 °C	ISO 306/B50
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 ⁴	1.490	1.490	ISO 489
Light Transmittance (125.0 mil (3175 µm))	92.0 %	92.0 %	ASTM D1003
Haze (125.0 mil (3175 µm))	2.00 %	2.00 %	ASTM D1003

Additional Information

SOLARKOTE™ Acrylic formulations are designed to effectively screen out high energy UV wavelength at 0.006" (6.0 mil) thickness.

Extrusion Notes

Recommended Drying Conditions: 170 °F (77 °C) for a minimum of 4 hours at -40°F (-40°C) dew point or < 0.06% moisture content.

Notes

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

¹ Annealing Cycle: 4 hours at 176 °F (80 °C)

² Rate A (50°C/h), Loading 1 (10 N)

³ Rate A (50°C/h), Loading 2 (50 N)

⁴ Method B

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