

Technical Information



PLEXIGLAS® Frosted V045-68177

Overview

Plexiglas® Frosted V045-68177 is a thermoplastic acrylic resin formulated for injection molding and extrusion applications. It is characterized by its good heat resistance, and translucent or frosted appearance. It exhibits exceptional light transmission, high haze and has a textured surface when extruded.

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.18 g/cm ³	1.18 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/3.8 kg)	1.8 g/10 min	1.8 g/10 min	ASTM D1238
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
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	464000 psi	3200 MPa	ASTM D638
Tensile Strength (Break)	10300 psi	71.0 MPa	ASTM D638
Tensile Elongation (Break)	6.0 %	6.0 %	ASTM D638
Flexural Modulus	464000 psi	3200 MPa	ASTM D790
Flexural Strength (Break)	15400 psi	106 MPa	ASTM D790
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact (73°F (23°C))	0.30 ft-lb/in	16 J/m	ASTM D256
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Rockwell Hardness (M-Scale)	94	94	ASTM D785
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load ¹			ASTM D648
66 psi (0.45 MPa), Annealed	201 °F	94.0 °C	
264 psi (1.8 MPa), Annealed	199 °F	93.0 °C	
Vicat Softening Temperature			
--	217 °F	103 °C	ASTM D1525 ²
--	207 °F	97.2 °C	ASTM D1525 ³
Thermal Conductivity	1.3 Btu·in/hr/ft ² /°F	0.19 W/m/K	ASTM C177
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating	HB	HB	UL 94
Optical	Nominal Value (English)	Nominal Value (SI)	Test Method
Light Transmittance (78.74 mil (2000 µm))	92.0 %	92.0 %	ASTM D1003
Haze (78.74 mil (2000 µm))	97.0 %	97.0 %	ASTM D1003
Additional Information	Nominal Value (English)	Nominal Value (SI)	Test Method
ASTM Classification	PMMA 0131T1V1	PMMA 0131T1V1	ASTM D788

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 @ 80°C (176°F)

² Rate A (50°C/h), Loading 1 (10 N)

³ Rate A (50°C/h), Loading 2 (50 N)

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