

Technical Information



PLEXIGLAS® Diffuse™ V045-68210

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)	1.2 g/10 min	1.2 g/10 min	ASTM D1238
Molding Shrinkage - Flow	2.0E-3 to 6.0E-3 in/in	0.20 to 0.60 %	ASTM D955
Water Absorption (24 hr)	0.30 %	0.30 %	ASTM D570
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	479000 psi	3300 MPa	ASTM D638
Tensile Strength (Break)	10000 psi	69.0 MPa	ASTM D638
Tensile Elongation (Break)	10 %	10 %	ASTM D638
Flexural Modulus	406000 psi	2800 MPa	ASTM D790
Flexural Strength (Break)	14500 psi	100 MPa	ASTM D790
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact (73°F (23°C))	0.47 ft-lb/in	25 J/m	ASTM D256
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Rockwell Hardness (M-Scale)	84	84	ASTM D785
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load ¹			ASTM D648
66 psi (0.45 MPa), Annealed	219 °F	104 °C	
264 psi (1.8 MPa), Annealed	217 °F	103 °C	
Vicat Softening Temperature			
--	228 °F	109 °C	ASTM D1525 ²
--	214 °F	101 °C	ASTM D1525 ³
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))	52.0 %	52.0 %	ASTM D1003
Haze (78.74 mil (2000 µm))	> 100 %	> 100 %	ASTM D1003
Additional Information	Nominal Value (English)	Nominal Value (SI)	Test Method
ASTM Classification	0131T0V1	0131T0V1	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: 16 hours @ 90°C (194°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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