

Technical Information



PLEXIGLAS® V825T-LPL™

Overview

Light Transmission, Optimized for long light path length applications.

Automotive OEMs have historically used distinctive forward lighting features to differentiate their vehicle brands. The proliferation of LED technology now allows designers to extend the length of LED-driven optics, create more distinctive designs, and minimize light transmission concessions.

Excellent optical performance. Fewer LEDs.

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.19 g/cm ³	1.19 g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (230°C/3.8 kg)	2.8 g/10 min	2.8 g/10 min	ISO 1133
Molding Shrinkage - Flow	2.0E-3 to 6.0E-3 in/in	0.20 to 0.60 %	ASTM D955
Water Absorption (24 hr, 73°F (23°C))	0.30 %	0.30 %	ISO 62
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Stress (Yield, 73°F (23°C))	10200 psi	70.0 MPa	ISO 527-2
Tensile Strain (Break, 73°F (23°C))	6.0 %	6.0 %	ISO 527-2
Flexural Modulus (73°F (23°C))	479000 psi	3300 MPa	ISO 178
Flexural Stress (73°F (23°C))	14900 psi	103 MPa	ISO 178
Compressive Stress (73°F (23°C))	17000 psi	117 MPa	ISO 604
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength (73°F (23°C))	0.95 ft·lb/in ²	2.0 kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength 73°F (23°C)	9.5 ft·lb/in ²	20 kJ/m ²	ISO 179/1eU
Notched Izod Impact Strength (73°F (23°C))	0.86 ft·lb/in ²	1.8 kJ/m ²	ISO 180
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Rockwell Hardness (M-Scale, 73°F (23°C))	97	97	ISO 2039-2
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load 264 psi (1.8 MPa), Annealed	212 °F	100 °C	ISO 75-2/A
Vicat Softening Temperature	226 °F	108 °C	ISO 306/B50
CLTE - Flow (-22 to 73°F (-30 to 23°C))	3.6E-5 in/in/°F	6.5E-5 cm/cm/°C	ASTM D696
Specific Heat	0.500 Btu/lb/°F	2090 J/kg/°C	
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating	HB	HB	UL 94
Optical	Nominal Value (English)	Nominal Value (SI)	Test Method
Refractive Index ¹	1.490	1.490	ISO 489
Light Transmittance (118.1 mil (3000 µm))	92.5 %	92.5 %	ASTM D1003
Haze (118.1 mil (3000 µm))	0.500 %	0.500 %	ASTM D1003
Injection	Nominal Value (English)	Nominal Value (SI)	
Drying Temperature	185 to 194 °F	85 to 90 °C	
Drying Time	4.0 hr	4.0 hr	
Processing (Melt) Temp	446 to 482 °F	230 to 250 °C	
Mold Temperature	140 to 194 °F	60 to 90 °C	

Notes

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

¹ Method A

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