Technical Information

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PLEXIGLAS® Frosted V825-68177

Overview

Plexiglas® Frosted V825-68177 is a thermoplastic acrylic resin formulated for injection molding and extrusion applications. It is characterized by its high 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	1.19	g/cm³	1.19	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/3.8 kg)	2.1	g/10 min	2.1	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)	0.30	%	0.30	%	ASTM D570
Mechanical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Tensile Modulus	450000	psi	3100	MPa	ASTM D638
Tensile Strength (Break)	9400	psi	64.8	MPa	ASTM D638
Tensile Elongation (Break)	4.0	%	4.0	%	ASTM D638
Flexural Modulus	480000	psi	3310	MPa	ASTM D790
Flexural Strength (Yield)	16000	psi	110	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)	90		90		ASTM D785
Thermal	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Deflection Temperature Under Load [1]					ASTM D648
66 psi (0.45 MPa), Annealed	223	°F	106	°C	
264 psi (1.8 MPa), Annealed	219	°F	104	°C	
Vicat Softening Temperature					
--	233	°F	112	°C	ASTM D1525 [2]
--	219	°F	104	°C	ASTM D1525 [3]
Thermal Conductivity	1.3	Btu·in/hr/ft²/°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 (125.0 mil (3175 µm))	84.0	%	84.0	%	ASTM D1003
Additional Information	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
ASTM Classification	PMMA 0131T1V2		PMMA 0131T1V2		ASTM D788

Injection	Nominal Value	(English)	Nominal Value	(SI)
Drying Temperature	194	°F	90	°C
Drying Time	4.0	hr	4.0	hr

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: 4hrs @ 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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