

# PLEXIGLAS® Diffuse™ V045-68209

ACRYLIC RESIN

## Typical Properties<sup>1</sup>

	Plexiglas® Diffuse™ V045-68209	Units	Test Method
<b>Physical</b>			
Melt Flow Rate (230°C/3.8 kg)	1.7	g/10 min	ASTM D1238
Specific Gravity	1.19	–	ASTM D792
Mold Shrinkage	0.2 - 0.6	%	ASTM D955
Water Absorption (24 hr immersion)	0.3	% weight gain	ASTM D570
<b>Mechanical</b>			
Tensile Strength @ Maximum	61 (8.8)	MPa (kpsi)	ASTM D638
Tensile Elongation @ Break	15	%	ASTM D638
Tensile Modulus	2.9 (420)	GPa (kpsi)	ASTM D638
Flexural Strength @ Maximum	100 (15)	MPa (kpsi)	ASTM D790
Flexural Modulus	2.7 (380)	GPa (kpsi)	ASTM D790
Notched Izod Impact @ 23°C (73°F)	38 (0.7)	J/m (ft-lb/in)	ASTM D256
Rockwell Hardness	86	M-scale	ASTM D785
<b>Thermal</b>			
DTUFL (0.455 MPa/66 psi; annealed) <sup>2</sup>	105 (221)	°C (°F)	ASTM D648
DTUFL (1.82 MPa/264 psi; annealed) <sup>2</sup>	100 (212)	°C (°F)	ASTM D648
Vicat Softening Point (50°C/hr; 10N)	109 (228)	°C (°F)	ASTM D1525
Vicat Softening Point (50°C/hr; 50N)	104 (219)	°C (°F)	ASTM D1525
Flammability	HB	Class	ASTM D635
<b>Optical<sup>3</sup></b>			
Refractive Index (N <sub>d</sub> @ 23°C/73°F)	NA	–	ASTM D542
Luminous Transmission (2.0 mm/0.080")	79	%	ASTM D1003
Haze (2.0 mm/0.080")	>100	%	ASTM D1003
<b>Classification</b>			
ASTM Classification	PMMA 0111T0V1	–	ASTM D788

1 - Values reported are averages measured on 3.2 mm (0.125") thick samples (unless otherwise noted) and should not be used for specification purposes.

2 - Deflection Temperature Under Flexural Load (DTUFL) Annealing Cycle: 16 hours @90°C (194°F).

3 - Optical properties measured using extruded sheet samples, and haze reading >30% reported for informational purposes.

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