

TECHNICAL DATA SHEET

PLASTICS | PLEXIGLAS® FROSTED
AMERICAS



PLEXIGLAS® FROSTED A Timeless Classic with Endless Possibilities

Durable, lightweight, and uniquely finished, PLEXIGLAS® Frosted acrylic sheet is an excellent material for backdrops, columns, lighting diffusers, illuminated signage, shelving, tabletops, visual displays, and more. The application options are truly only limited by the imagination due to the internal bead technology used when extruding these sheets.

The frosted look of this acrylic isn't just on the surface — it's engineered throughout the entire acrylic structure, which means that PLEXIGLAS® Frosted acrylic sheet retains its frosted finish even after thermoforming, unlike comparable products with surface embossed textures.

Highlights of this product include:

- Resists fingerprints, scratches, and smudges
- Easy to clean and virtually maintenance-free
- Allows maximum light transmission with excellent diffusion
- Dramatic, rich effects while hiding light sources
- Easy to cut, drill, rout, finish, and cement
- Patented technology within the scope of one or more claims of US patent 7,067,188

Color Offerings*

PLEXIGLAS® Frosted is offered in numerous colors, including the selection of standard and premier options shown below. Trinseo also offers the ability to create custom colors and color matching, so you're sure to find the color you need.

Colorless	
White translucent	W3172
White translucent	W3376
Black	3165
Blue	3391

* Not all colors may be in stock. Colors shown are not a complete list of capabilities. Premier and custom colors are available upon request. Minimum order quantity and lead time may vary.



Product Offerings**

PLEXIGLAS® Frosted is available in a variety of sheet sizes and thicknesses, with custom offerings available upon request.

Thickness	Sheet Size
0.080"	48" x 96"
0.098"	60" x 96"
0.118"	72" x 96"
0.177"	49" x 97"
0.220"	61" x 97"
0.236"	73" x 97"
0.354"	51" x 100"
0.472"	63" x 100"
	75" x 100"
	48" x 120"
	60" x 120"
	72" x 120"

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Typical Values

	Test Method	Unit	Value
Physical properties			
Nominal thickness for data unless otherwise noted	N/A	in	0.236"
Specific gravity	ASTM D-792	-	1.18
Rockwell hardness	ASTM D-785	M scale	95
Optical properties			
Refractive index (ND @ 73°F (23°C))	ASTM D-542	-	1.49
Luminous transmittance	ASTM D-1003	%	85
Mechanical properties			
Tensile strength, maximum	ASTM D-638	psi	10,200
Tensile elongation	ASTM D-638	%	4.5
Tensile modulus of elasticity	ASTM D-638	psi	450,000
Flexural strength, maximum	ASTM D-790	psi	15,000
Flexural modulus of elasticity	ASTM D-790	psi	450,000
Notched izod impact @ 73°F (23°C)	ASTM D-256	ft-lb/in	0.3
Thermal properties			
Deflection temperature under flexural load @ 264psi - unannealed ¹	ASTM D-648	°F	185
Maximum recommended continuous service temperature	N/A	°F	170 - 190
Recommended thermoforming temperature	N/A	°F	275 - 350
Flammability³ & specification compliance properties			
Horizontal burn rate ^{1,2}	ASTM D-635	in/min	1.0
Smoke density ^{1,2}	ASTM D-2843	%	2.0
Self ignition temperature ^{1,2}	ASTM D-1929	°F	850
Plastics component QMFZ2.E39437 - Flammability Classification	UL 94	-	HB (≥ 0.080" All)
Plastics component QMFZ2.E39437 - Outdoor Sustainability	UL 746C	-	f1 (≥ 0.080" colorless) f2 (≥ 0.080" ALL)
International building code	IBC 2606.4	-	CC2 (0.080" - 0.472")
Miami-dade county product control division	NOA # 21-0825.02	-	PASS (0.080" - 0.472")
Standard specification for PMMA acrylic plastic sheet	ASTM D-4802	-	Category B-1, Finish 2