

TECHNICAL DATA SHEET

PLASTICS | PLEXIGLAS® MC
AMERICAS



PLEXIGLAS® MC An Exceptional Grade for a Broad Range of Applications

Premium-grade PLEXIGLAS® MC acrylic sheet satisfies the requirements of nearly all high performance applications, and has a broad range of colors, patterns, and light transmission percentages. These numerous possibilities – from tints to LED-hiding, bold to subdued, matte to glossy, and everything in between – provide limitless opportunities to incorporate PLEXIGLAS® acrylic into any project.

With a broad range of colors, patterns, and light transmissions, many of the PLEXIGLAS® MC acrylic sheet colors have excellent diffusion characteristics for LED hiding:

- High performance acrylic sheet
- Exceptional optical clarity
- Weather resistant
- Lightweight – Half the weight of glass
- Can be easily fabricated and thermoformed
- Available in transparent, translucent, and opaque colors
- Custom sheet sizes available upon request

Color Offerings*

PLEXIGLAS® MC acrylic sheet is available in a variety of standard and premier colors choices throughout the transparent, translucent, and opaque ranges. There are also multiple finish options, and the ability to create custom colors and color matches, so you're sure to find the look you need for any application.

* Premier and custom colors are available upon request; minimum order quantity and lead times may vary.



PLEXIGLAS® MC acrylic sheet is a versatile material that has many residential, commercial, industrial, and professional uses. The full list of possibilities is limited only by the imagination, but typical applications include:

- Architectural glazing
- Exterior signage
- Industrial glazing
- POP displays
- Store fixtures
- Brochure holders
- Furniture
- Interior signage
- Skylights

Product Offerings**

PLEXIGLAS® MC 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"	51" x 100"
0.236"	75" x 100"
0.354"	48" x 120"
0.472"	60" x 120"
	72" x 120"

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TRINSEO™

Connecting ideas with solutions

Typical Values

	Test Method	Unit	Value
Physical properties			
Nominal thickness for data unless otherwise noted	-	in	0.236"
Specific gravity	ASTM D-792	-	1.19
Rockwell hardness	ASTM D-785	M scale	90
Poisson's ratio	N/A	-	0.35
Optical properties			
Refractive Index (ND @ 73°F (23°C))	ASTM D-542	-	1.49
Luminous Transmittance ¹	ASTM D-1003	%	92.0
Haze ¹	ASTM D-1003	%	< 2.0
Mechanical properties			
Tensile strength, maximum	ASTM D-638	psi	10,200
Tensile strength, yield	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
Un-notched charpy @ 73°F (23°C)	ASTM D-256	ft-lb/0.5"x1" section	7.0
Thermal properties			
Deflection temperature under Flexural Load @ 264psi - unannealed ¹	ASTM D-648	°F	200
Coefficient of thermal expansion at 60°F	ASTM E-831	in/in/°Fx10	3.6
Coefficient of thermal conductivity	ASTM- C-177	BTU/(hr)(ft) (°F/in)	1.3
U-value (summer gain, winter loss)	N/A	BTU/(hr)(ft) (°F/in)	0.89, 0.96
Specific heat capacity at 77°F	N/A	BTU/(lb°F)	0.35
Maximum recommended continuous service temperature	N/A	°F	170 - 190
Recommended thermoforming temperature	N/A	°F	275 - 350
Craze Resistance properties			
Constant stress craze resistance, IPA ⁵	Modified ARTC Method Mil P-6997	psi	1,300
Constant stress craze resistance, aromatic/alcohol blend ⁵	Modified ARTC Method Mil P-6997	psi	1,200
Flammability ^{1,6} & specification compliance properties			
Horizontal burn rate ^{1,2}	ASTM D-635	in/min	1.1
Smoke density	ASTM D-2843	%	1.2
Self ignition temperature	ASTM D-1929	°F	860
Surface burning characteristics - Flame Spread	CAN/ULC-S102.2-07 File R16788	-	100 (0.125" - 0.250")
Surface burning characteristics - Smoke Developed	CAN/ULC-S102.2-07 File R16788	-	>500 (0.125" - 0.250")
Plastics component QMFZ2.E39437 - Flammability Classification	UL 94	-	94HB (≥ 0.060")
Plastics component QMFZ2.E39437 - Outdoor Suitability	UL 746C	-	f1 (≥ 0.060" Colorless) f2 (≥ 0.060" ALL)
International building code	IBC 2606.4	-	CC2 (0.080" - 0.354")
American national standard for safety glazing	ANSI Z97.1	-	PASS (≥ 0.080")
FMVSS 205 - Federal Motor Vehicle Safety Glazing	ANSI Z26.1	-	AS-5, AS-6, AS-7
Standard Specification for PMMA acrylic plastic sheet	ASTM D-4802	-	Category B-1, Finish 1