

Diffusion with maximum transmission

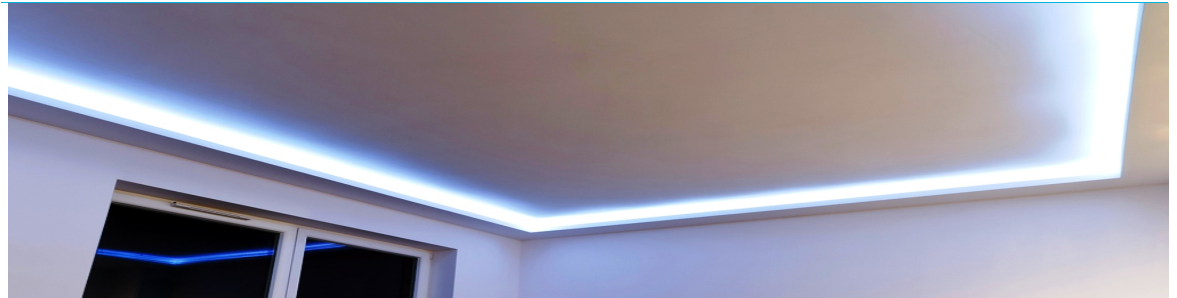
Plexiglas® MC Diffusion acrylic sheet is one of the newest product offerings in the Plexiglas® family. Designed specifically for the lighting industry, the sheet will diffuse light from LED sources without sacrificing significant light transmission.

There are two grades available from the Plexiglas® MC Diffusion family. Plexiglas® MC Diffusion 100 provides a smoother sheet surface and Plexiglas® MC Diffusion 200 is a sheet with a textured surface.

The diffusion quality is what makes this sheet an exceptional choice for many light source applications.

The material is easily designed and has all the fabrication attributes you have come to expect of standard Plexiglas® sheet.

This versatile material can be used in lighting applications for commercial, industrial, residential and professional uses. Besides the typical lighting applications, Plexiglas® MC Diffusion acrylic sheet is a perfect fit for POP displays, store fixtures, signage, and decorative furnishings.



Features

- Excellent diffusion characteristics
- Exceptional light transmission
- Lightweight - Half the weight of glass
- Easily fabricated and thermoformed
- Standard thickness of 0.080" and 0.118"
- Standard sheet sizes
- Run to size available upon request



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PLEXIGLAS® MC DIFFUSION

July 2013

Standard Offering

ACRYLIC SHEET

- Available in standard gauges of 0.080" and 0.118"
- Standard sheet sizes available
- Run to size available upon request

Technical Specifications

	Measurement method	Unit	Plexiglas® MC Diffusion 100 Value	Plexiglas® MC Diffusion 200 Value
Physical				
Nominal thickness for data unless noted		In	0.118	0.118
Specific Gravity	ASTM D-972	n/a	1.18	1.17
Rockwell Hardness	ASTM D-785	M scale	74	59
Optical				
Luminous Transmittance	ASTM D-1003	%	87	84
Haze	ASTM D-1003	%	>95	>95
Mechanical				
Tensile Strength, Maximum	ASTM D-638	psi	7600	6500
Tensile Strength, Yield	ASTM D-638	psi	7500	6500
Tensile Elongation, Yield	ASTM D-638	%	6.5	5.6
Tensile Modulus of Elasticity	ASTM D-638	psi	405,000	350,000
Flexural Strength, Maximum	ASTM D-790	psi	13,500	12,000
Flexural Modulus of Elasticity	ASTM D-790	psi	405,000	340,000
Notched Izod Impact @ 73°F (23°C)	ASTM D-256	ft-lbs / in	0.5	0.5
Un-notched Charpy @ 73°F (23°C)	ASTM D-6110	ft-lbs / in	7.7	8.3
Thermal				
Deflection Temp Under Flexural Load @264 psi – un-annealed	ASTM D-648	°F	174	171
Deflection Temp Under Flexural Load @264 psi – annealed (16 hrs @ 176°F)	ASTM D-648	°F	198	196
Maximum Recommended Continuous Service Temperature		°F	145 – 170	140 - 170
Recommended Thermoforming Temperature		°F	275-350	275-350
Craze Resistance				
Constant Stress Craze Resistance, IPA	MIL-PRF-8184	psi	1860	1780
Constant Stress Craze Resistance, Acetone	MIL-PRF-8184	psi	660	460
Flamability and Specification Compliance				
Self Ignition Temperature	ASTM D-1929	°F	860	880
Horizontal Burn Rate	ASTM D-635	in / min	0.22	0.23
Smoke Density	ASTM D-2843	%	2.1	3.1

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