



# Makrolon® GP Matte sheet

## Matte textured

Makrolon® GP Matte sheet is a translucent, UV stabilized, polycarbonate product with a matte textured surface on one side. This unique matte texture obscures vision and reduces glare. The product features outstanding impact strength, superior dimensional stability, and high temperature resistance. Makrolon GP Matte sheet is offered with a five (5) year Limited Product Warranty against breakage. The terms of the warranty are available upon request.

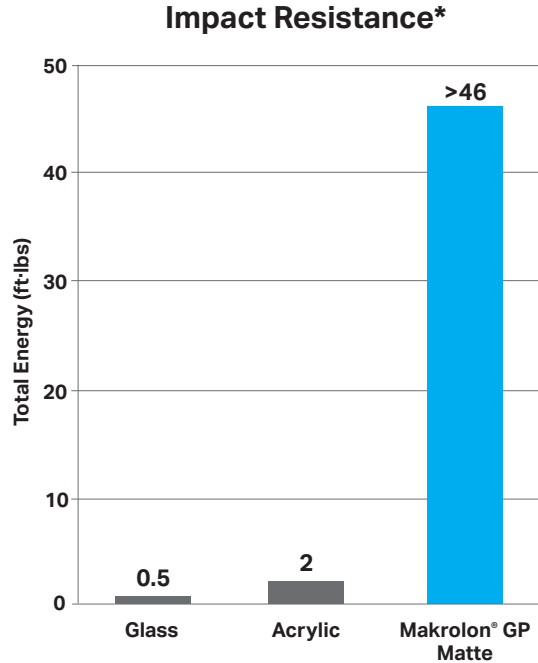
## Applications

Industrial glazing, privacy glazing, thermoformed and fabricated translucent components, signs, displays, lighting covers

Typical Properties*			
Property	Test Method	Units	Values
<b>PHYSICAL</b>			
Specific Gravity	ASTM D 792	–	1.2
Refractive Index	ASTM D 542	–	1.586
Light Transmission, Clear @ 0.118"	ASTM D 1003	%	86
Water Absorption, 24 hours	ASTM D 570	%	0.15
Poisson's Ratio	ASTM E 132	–	0.38
<b>MECHANICAL</b>			
Tensile Strength, Ultimate	ASTM D 638	psi	9,500
Tensile Strength, Yield	ASTM D 638	psi	9,000
Tensile Modulus	ASTM D 638	psi	340,000
Elongation	ASTM D 638	%	110
Flexural Strength	ASTM D 790	psi	13,500
Flexural Modulus	ASTM D 790	psi	345,000
Compressive Strength	ASTM D 695	psi	12,500
Compressive Modulus	ASTM D 695	psi	345,000
Izod Impact Strength, Notched @ 0.125"	ASTM D 256	ft-lbs/in	18
Izod Impact Strength, Unnotched @ 0.125"	ASTM D 256	ft-lbs/in	60 (no failure)
Instrumented Impact @ 0.125"	ASTM D 3763	ft-lbs	>46
Shear Strength, Ultimate	ASTM D 732	psi	10,000
Shear Strength, Yield	ASTM D 732	psi	6,000
Shear Modulus	ASTM D 732	psi	114,000
Rockwell Hardness	ASTM D 785	–	M70 / R118
<b>THERMAL</b>			
Coefficient of Thermal Expansion	ASTM D 696	in/in/°F	3.75 x 10 <sup>-5</sup>
Coefficient of Thermal Conductivity	ASTM C 177	BTU-in/hr-ft <sup>2</sup> -°F	1.35
Heat Deflection Temperature @ 264 psi	ASTM D 648	°F	270
Heat Deflection Temperature @ 66 psi	ASTM D 648	°F	280
Brittleness Temperature	ASTM D 746	°F	-200
Shading Coefficient, clear @ 0.236"	NFRC 100-2010	–	0.97
U factor @ 0.236" (summer, winter)	NFRC 100-2010	BTU/hr-ft <sup>2</sup> -°F	0.85, 0.92
<b>ELECTRICAL</b>			
Dielectric Constant @ 10 Hz	ASTM D 150	–	2.96
Dielectric Constant @ 60 Hz	ASTM D 150	–	3.17
Volume Resistivity	ASTM D 257	Ohm-cm	8.2 x 10 <sup>16</sup>
Dissipation Factor @ 60 Hz	ASTM D 150	–	0.0009
Arc Resistance	–	–	–
Stainless Steel Strip electrode	ASTM D 495	Seconds	10
Tungsten Electrodes	ASTM D 495	Seconds	120
Dielectric Strength, in air @ 0.125"	ASTM D 149	V/mil	380
<b>FLAMMABILITY</b>			
Horizontal Burn, AEB	ASTM D 635	in	<1
Ignition Temperature, Self	ASTM D 1929	°F	1070
Ignition Temperature, Flash	ASTM D 1929	°F	870
Flame Class @ 0.060"	UL 94	–	HB

\*Some properties characterized using non-textured sheet.

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\*Instrumented Impact per ASTM D 3763,  
sample thickness 0.125" nominal

## Regulatory code compliance and certifications

IBC 2606.4, Class CC1 for gauges 60-500 mils

Miami-Dade NOA #12-0605.05  
Florida Building Code 2010  
High Velocity Hurricane Zone (HVHZ)

CPSC 16 CFR 1201 Category I and Category II: Safety Standard for Architectural Glazing Materials

ANSI Z97.1-2004: American National Standard for Safety Glazing Materials Used in Buildings -  
Safety Performance Specifications and Methods of Test. Class A

UL 972: Burglary Resistant Glazing Materials, UL File #BP2126

UL 94: Flammability, UL File #E351891

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