

PolyGreen™ PMMA Technical Data Sheet

Description and Applications

PolyGreen™ PMMA (Polymethyl Methacrylate) sheets are premium optical grade sheets offering exceptional clarity upto 93% light transmission, surface brilliance and excellent weatherability. With a glass-like transparency and excellent UV resistance, PolyGreen™ PMMA retains color and gloss even after prolonged outdoor exposure. It combines scratch resistance from its high surface hardness with good rigidity and dimensional stability, making it ideal for applications requiring visual quality and durability. These sheets are very process friendly and can be easily fabricated by sawing, laser, cutting, thermoforming, delivering a high gloss finish suitable for glazing, greenhouses swimming pools, signage, display panels, light diffusers, vending machines and protective panels. This product provides a dependable balance of aesthetics, mechanical strength and weather resistance for both indoors and outdoor conditions.

Typical Property Values

Property	Test Method	Units	Value
Physical			
Density	ASTM D792	g/cm ³	1.19
Water Absorption	ASTM D570	%	0.3
Rockwell Hardness M	ASTM D785		90
Optical			
Light Transmission	ASTM D1003	%	93
Refractive Index	ASTM D542	%	1.49
Mechanical			
Tensile Strength at Break	ASTM D785	MPa	90
Elongation at Break	ASTM D638	%	4
Modulus of Elasticity	ASTM D638	GPa	3.23
Flexural Yield Strength	ASTM D790	MPa	98.04
Flexural Modulus	ASTM D790	GPa	3.04
Compressive Yield Strength	ASTM D695	Mpa	97.9
Izod Impact, Notched	ASTM D256	J/cm	0.196
Impact Resistance (Ball Drop Test)	ASTM D4226	J/cm ²	115
Thermal			
Linear Mold Shrinkage	ASTM D955	cm / cm	0.002 – 0.006
Specification			
Thickness	1.0mm – 30.0mm		
Thickness Tolerance	+/- 0.2mm		
Maximum Width	2100mm		
Length	Customised		
Color	Clear or Customised		
Standard Dimensions	1.22m x 1.83m ; 1.22m x 2.44m		

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These are typical properties and are not intended for specifications purposes. If minimum certifiable properties are required, please contact your local sales representative. Reported values are based on 3.2mm thickness film unless otherwise noted.

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