



The Plastic Films Specialist

PolyGreen™ SMMA Technical Data Sheet

Description

PolyGreen™ SMMA (Styrene-Methyl Methacrylate) sheet is a transparent copolymer that combines the rigidity of styrene with the clarity and UV resistance of methyl methacrylate (PMMA), resulting in a material with high impact strength and transparency. It features excellent chemical resistance against acids, alcohols, alkalis and house cleaners, maintaining clarity after exposure to common chemicals without crazing and surface degradation. It combines excellent processing advantages & cost effectiveness of styrene polymers, with brilliance & surface quality of polyacetal. It retains excellent dimensional stability due to very low moisture absorption rate, making it ideal for applications in hot and humid conditions.

Typical Applications

- Retail Displays such as signage, point of sales displays, printed graphics, display cases
- Consumer Wares and Medical device (equipment) panels . Used in production of durable clear containers optical lens, basketball net boards where ease of processing, excellent impact and clarity is important
- Automotives decorative panels and parts requiring high clarity and impact resistance
- Electronics housing and enclosures where clarity, durability and UV resistance are essential

Typical Property Values

Property	Test Method	Units	Value
Physical			
Density	ASTM D792	g/cm ³	1.12
Moisture Absorption	ASTM D570	%	0.1
Rockwell Hardness M	ISO 2039-2		86
Optical			
Light Transmission	ISO 13468-1	%	89-91
Haze	ISO 14782	%	2.0
Mechanical			
Tensile Strength @ Break 5mm/min	ISO 527-2	MPa	70 - 73
Elongation @ Break 5mm/min	ISO 527-2	%	6
Flexural Strength 2mm/min	ASTM D790	MPa	107 - 111
Flexural Modulus 2mm/min	ASTM D790	GPa	3.32 – 3.35
Izod Impact Resistance	ASTM D256	J/cm ²	1.80
Charpy Impact Notched	ISO 179-2	J/cm ²	0.2
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 2.0mm thickness film unless otherwise noted.

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