

# MASAF PALST PMMA Product Data Sheet (POLYSHIELD)

## Description

PMMA Plain sheets are replacement for glass, weighing half the weight and has a higher impact strength, does not shatter when exposed to high strains unlike glass which shatters when exposed to minimum strain. Light Transmission is more in PMMA sheets, up to 92% of visible light is transmitted through acrylic whereas Mineral glass transmits 80-90%. Thermal conductivity of acrylic is lower than that of laminated glass. In other words, the thermal insulation of acrylic is better than of laminated glass. acrylic is Resistant to UV rays when compared to glass which Blocks only a small amount of UV radiation.

Revision 10052024

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>GENERAL</b>			
Density	1.19	g/cm <sup>3</sup>	ASTM D 792
Water absorption	>0.30	%	ASTM D 570
Flammability UL94	HB	---	IEC 60695
<b>MECHANICAL</b>			
Tensile strength at break	65	Mpa	ASTM D 638
Elongation at break	6	%	ASTM D 638
Flexural strength	110	Mpa	ASTM D 790
Izod impact (notched)	2	Kj/m <sup>2</sup>	ASTM D 256
Charpy impact (notched)	1.4	Kj/m <sup>2</sup>	ASTM D 6110
<b>THERMAL</b>			
Vicat softening point 1KN	115	°C	ASTM D 1525
Heat deflection temperature@ 1.82	95	°C	ASTM D 648
Coefficient of linear thermal expansion	7 x 10 <sup>-5</sup>	m/m °C	ASTM E 831
Shrinkage	70	%	PCA Internal
<b>ELECTRICAL</b>			
Surface Resistivity	>10 <sup>16</sup>	Ohm-cm	ASTM D 257
Volume resistivity	>10 <sup>15</sup>	Ohm-cm	ASTM D 257
Dielectric strength	20	Kv/mm	ASTM D 149
<b>OPTICAL (For transparent sheets)</b>			
Light transmission	>90	%	ASTM D 1003
Haze	<0.8	%	ASTM D 1003
Refractive index	1.49	-	ASTM D 542

\*Typical values not to be construed as specification limits

## DISCLAIMER:

The information contained herein includes typical properties of our plain sheets of 3mm and is provided only as guidance. It is the customer's responsibility to inspect and test our product(s) in order to satisfy itself as to the suitability of the product(s) for its and its customer's purposes. To the extent permitted by the law. We are not liable in respect of any claims made by the customer with respect to products typical properties. The customer is responsible for the appropriate, safe and legal use, processing and handling of all product(s) purchased from us.