

PLASKOLITE

OPTIX[®] (PLAZCRYL)

Extruded Polymethyl Methacrylate
(PMMA)

SOLID SHEETS 



OPTIX EXTRUDED POLYMETHYL METHACRYLATE (PMMA) SOLID SHEETS

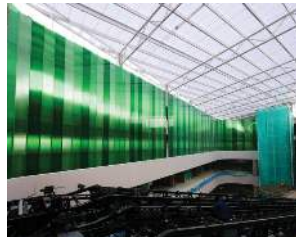
Bright clarity, excellent transparency and easy to thermoform. The OPTIX sheets provide long-life UV resistant products for a broad range of applications.

Sheets are produced according to ISO 7823-2:2003 standard.

APPLICATIONS



Glazing



Curtain walls and Interior decoration



Noise reduction barriers



Lighting, Illumination and signage



Sky light / Domes



Art design



POS display stands



Automotive

MAIN ADVANTAGES

- Highly transparent, 92% light transmission
- Low haze <1%
- Half weight of glass
- Bright and hard surface
- Excellent color stability
- Proved weather resistance. Life-long UV-resistant.
- 10-year limited warranty
- Easily thermoformed, machined, polished and reshaped
- Easily glue bonded
- Cold curving capability
- No carcinogenic or hazardous substances
- Non-toxic fumes emitted in fire, fires can be easily extinguished with water
- Environment friendly-100% recyclable
- REACH and RoHS declarations

Typical Properties	Method	Units	OPTIX (R7000)
General			
Density	ISO 1183	g/cm ³	1.19
Water Absorption	ISO 62 (1)	%	0.3
Flammability (thickness dependent)	UL94		HB
Flammability (2-5 mm)	Euroclass EN13501		E
Mechanical			
Tensile Strength	ISO 527-2	MPa	72
Elongation at break	ISO 527-2	%	4
Tensile Modulus	ISO 527-2	MPa	3300
Flexural Strength	ISO 178	MPa	106
Flexural Modulus	ISO 178	MPa	3350
Compressive Strength	ISO 604	MPa	117
Rockwell Hardness	M scale		95
Impact Resistance (Charpy unnotched)	ISO 179/1fu	kJ/m ²	15
Impact Resistance (Charpy notched)	ISO 179/1eA	kJ/m ²	2
Impact Resistance (Izod notched)	ISO 180/1A	kJ/m ²	1.5
Optical			
Refractive Index	ISO 489		1.49
Light Transmission (thickness dependent)	ASTM D1003	%	92
Haze (3mm transparent sheet)	ASTM D1003	%	< 1
Thermal			
Vicat Softening Temp.(50N)	ISO 306	°C	105
Heat Deflection Temp. (1.82 MPa)	ISO 75-1	°C	95
Coeff. of Linear Thermal Expansion (0-50OC)	ISO 11359-2	µm/m°C	65
Thermal Conductivity	ASTM C177	W/mK	0.19
Maximum Continuous Service Temp.		°C	70
Maximum Short Time Service Temp.		°C	90
Minimum Temp.		°C	-40
Electrical			
Dielectric Constant (50Hz)	DIN 53483	kV/mm	20-25
Dissipation Factor tanδ (100Hz)	DIN 53483		3.7
Dissipation Factor tanδ (1MHz)	DIN 53483		0.04
Surface Resistivity	IEC 60093	Ohm	>10 ¹⁴
Volume Resistivity	IEC 60093	Ohm.cm	>10 ¹⁵

Please note that the technical values given in the table are typical values for guidance and they are subjected to certain variability.

Dimensions

Thickness 0.70 - 30.0 mm
Width 1000, 1220, 1250 and 2050 mm
Length 600 - 6000 mm

All sheets are also available cut to size, according to customer requirements.

Colors

Transparent, white opaque, opal, diffusers, black, grey, green, brown, blue and red.

Grades

OPTIX UV Block - Blocks 98% of the UV light from 300-380 nm

OPTIX IR Solar - Reflects the undesirable hot IR radiation while allowing visible light to pass through.

OPTIX MRT - OPTIX clear sheets specially designed for optical applications. Limited to specific thicknesses and sizes.

OPTIX LED - The sheets are the most economical device in the field of illumination.

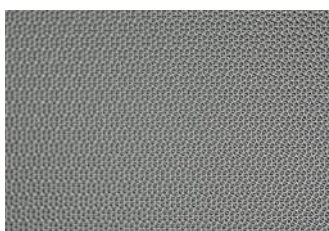
OPTIX AG - The sheets are extruded sheets with a hard and anti-glare coating.

Embossing Patterns

OPTIX sheets are available with different embossing patterns (limited to specific thicknesses and sizes)



Aqua



Pinspot



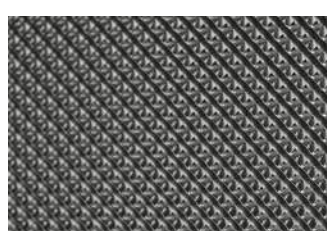
Cracked Ice



Non Reflective



G-Tech



K-12

These suggestions and data are based on information we believe to be reliable. They are offered in good faith, but without guarantee, as conditions and methods of use are beyond our control. We recommend that the prospective user determines the suitability of our materials and suggestions before adopting them on a commercial scale.

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