

# PLASKOLITE

## **Optix Cell Cast** PMMA Cast Solid Sheets

SOLID SHEETS

## OPTIX CELL CAST CAST POLYMETHYL METHACRYLATE (PMMA) SOLID SHEETS

PLASKOLITE offers OPTIX Cell Cast sheets with bright clarity, excellent transparency and easy to thermoform. These sheets are UV resistant for excellent weatherability and are suitable for a broad range of applications. OPTIX Cell Cast Sheets are produced per ISO 7823-12003 standard.

#### **APPLICATIONS**



Glazing



Interior Design



Aquariums



Art Design

Architecture



POP display stands



**Bridges Barriers** 



Acoustics Barriers

#### **Main Advantages**

- » Highly transparent, 92% light transmission
- » Low haze <1%
- » Lightweight-Less than half weight of glass
- » Bright and hard surface
- » Excellent color stability
- » Excellent dimensional stability
- » Excellent UV resistance and weatherability.
- » Good chemical resistance to a wide range of substances
- » 10-year Limited Product Warranty
- » Easy to thermoform, machine, polish and reshape
- » Easy to glue and bond
- » Cold-curving capability
- » Environment friendly: 100% recyclable
- » Fully recyclable polyethylene protective film
- » Easy to clean
- » No carcinogenic or hazardous substances
- » Non-toxic fumes emitted in fire
- » Ease to extinguish with water
- » REACH and RoHS declarations

#### **Dimensions:**

- » Thickness 3 6 mm, Dimension: 3050X2050 mm.
- » Thickness 8 35 mm, Dimension: 3050X2030 mm.
- » Thickness 40 60 mm, Dimension: 3000X2000 mm.

Sheets are also available cut to size, according to customer requirements

#### **Colors:**

Wide range of colors: opaques, translucents, opals, diffusers and LED. Special color matching available upon request.

#### Grades:

- » Optix Cell Cast Chemical-Resist Enhanced chemical resistant for perfumery.
- » Optix Cell Cast Sanitary Cast PMMA sheet with improved chemical resistance for sanitary applications and designed for easy and deep thermoforming.
- » Optix Cell Cast LED A wide range of sheets for visual communication applications.
- » Optix Cell Cast Fluorescent A wide range of impacting colors that looks like with their own light.
- » Optix Cell Cast UV-Block Blocks most of the UV-light for applications as art protecting or windows.
- » Optix Cell Cast UV-Open Transparent to UV light for solariums or greenhouses.
- » Optix Cell Cast Metal Incorporates special pigments that give a metallic effect to the finished product.
- » Optix Cell Cast SMR Is a Stainless-Steel Metal reinforced Cast PMMA panel specially designed for use in acoustic panels. Its patented retention system prevents falling off of debris in the event of a collision.
- » Optix Cell Cast Dual A dark (black/grey) sheet during the day and bright sheet (white/red/green) during the night, or at the opposite: white during the day and colored at night (with backlight).
- » Optix Cell Cast Satin Satin surface from one or two sides.

PROPERTIES	TEST METHOD	UNITS	VALUES
GENERAL			
Density	ISO 1183	g/cm³	1.2
Water absorption	ISO 62 (1)	%	0.3
Flammability	UL94		HB
MECHANICAL			
Tensile Strength	ISO 527-2	MPa	70
Elongation at break	ISO 527-2	%	4
Tensile Modulus	ISO 527-2	MPa	3300
Flexural Strength	ISO 178	MPa	104
Flexural Modulus	ISO 178	MPa	3000
Rockwell hardness	M scale		100
Impact Resistance (Charpy unnotched)	ISO 179/1fu	kJ/m²	15
Impact resistance (Izod notched)	ISO 180/1A	kJ/m²	1.5
OPTICAL			
Refractive Index	ISO 489		1.49
Light Transmission (3mm transparent sheet)	ASTM D1003	%	92
Haze (3mm transparent sheet)	ASTM D1003	%	<1
THERMAL			
Vicat Softening Temp. (50N)	ISO 306	°C	105-112
Heat Deflection Temp. (1.82 MPa)	ISO 75-1	°C	105
Coeff. of Linear Thermal Expansion	ISO 11359-2	<sup>0</sup> K <sup>-1</sup>	7x10 <sup>-5</sup>
Thermal Conductivity	ASTM C177	W/mK	0.19
Maximum Continuous Service Temp.		°C	82
ELECTRICAL			
Dielectric Strength	DIN 53481	kV/mm	20-25
Dielectric Constant (50Hz)	DIN 53483		3.6
Dissipation Factor tanδ (50Hz)	DIN 53483		0.06
Surface Resistivity	IEC 60093	Ohm	>1015
Volume Resistivity	IEC 60093	Ohm.cm	>1015

\* Typical properties are not intended for specifications purposes

## PLASKOLITE A GLOBAL LEADER IN THE PRODUCTION OF THERMOPLASTIC SHEET

### FOUNDED IN 1950

Our Mission: to deliver superior thermoplastic sheet, coatings and polymers to the world, through long-lasting customer relationships and hands-on customer service.

#### MANUFACTURING LOCATIONS



From our founding, PLASKOLITE strives to treat our employees, our customers, our community and the world, with kindness, dignity and respect. This drives our continuing effort to create sustainable products, in a sustainable manner, for future generations. This on-going commitment is expressed in the

PLASKOLITE Sustainable Ecosystem:

#### QUICK FACTS

STATUS: Privately held

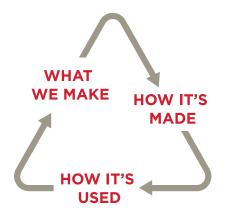
GLOBAL HEADQUARTERS: Columbus, OH

EMPLOYEES: 1900 Worldwide

**MARKETS SERVED:** Signage, Lighting, Retail Display, Construction, Transportation, Security, Bath & Spa, Industrial, Architecture, Green Houses

## OUR PILLARS OF SUSTAINABILITY

### EACH CONTRIBUTES TO MAKING THE WORLD A BETTER PLACE



WHAT WE MAKE	Versatile, high-quality, durable thermoplastic materialsnot single-use plastics
HOW IT'S MADE	How we make our products reflects our overall philosophy of continuous environmental improvement
HOW IT'S USED	Our thermoplastics play an important role in advancing human well-being, energy conservation and quality of life

**PLASKOLITE** 

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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