

Monogal

Solid PC sheets

About Plazit-Polygal

The Plazit Polygal Group is one of the leading international specialist manufacturers of thermoplastic sheets for various applications. Our company is respected worldwide for its innovative and high quality products and expert technical support. Our production facilities are located in Israel, USA, Chile, Bulgaria, Russia and Spain, enabling our clients to source our products close to their locations around the globe.

Both Plazit & Polygal started to manufacture extruded plastic sheets in 1973 – a landmark year for the international plastics industry. Within a short amount of time, Polygal became a pioneer in the manufacturing of Polycarbonate multi wall sheets. From modest beginnings, both companies have grown and become world leaders in the plastic sheeting market.

Plazit and Polygal merged their operations in 2011, and the Plazit Polygal Group continues to develop its products, production facilities, human resources and market presence. We are committed to providing industry leading service to our customers, guaranteeing superior quality products, flexibility and swift response times - these commitments are key to all our activities.

Plazit Polygal Group facilities are certified according to ISO 9001, ISO 14001, CSTB (France), HACCP, ROHS, fire and health certifications, and other international engineering standards. Our in-house experts provide technical support and continuous product development to meet the evolving needs of our global client base.

CORPORATE

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High quality extruded polycarbonate sheets

Monogal (Plazcarb) Polycarbonate extruded sheet is a very durable sheet that has high impact resistance. Monogal is stronger, usable in a higher temperature range and has better light transmission than many kinds of glass. Half the weight of glass and virtually unbreakable, Monogal sheets meet the stringent demand of applications such as heavy machinery, automotive, safety and construction, skylights and flat or curved glazing for architectural applications. A special co-extruded layer is provided on one or both sides for enhanced long term weather resistance.



Features and Benefits

- Virtually unbreakable
- High impact resistance
- High clarity & light transmission
- UV protective layer - 1 or 2 side
- High flame resistant
- Half the weight of glass
- Easy to machine, handle and install

Applications

- Glazing
- Roofing and windows
- Wind shields
- Noise reduction barriers
- Street furniture
- Lighting and signage
- Thermoforming, vacuum forming
- Fabricated parts



Monogal (Plazcarb) High quality polycarbonate solid sheets

General Properties	Method	Units	Value
Density	ASTM D 792	g/cm³	1.2
Light transmission (Depending on thickness)	ASTM D 1003	%	81 - 90
Refractive index	ASTM D 542		1,585
Mechanical			
Tensile Strength at yield	ASTM D 638	PSI	9,300
Tensile Modulus	ASTM D 638	PSI	335,620
Elongation at break	ASTM D 638	%	>100
Flexural Strength	ASTM D 790	PSI	13,450
Flexural Modulus	ASTM D 790	PSI	338,690
Rockwell hardness	ASTM D 785	M-scale	70
Impact resistant - Izod Notched @0.125"	ASTM D 256	ft.lbs/in	18
Thermal			
Heat Deflection Temperature under load of 264 PSI	ASTM D 648	°F	270
Vicat softening temp (50N)	ASTM D 1525	°F	290
Coefficient of Thermal conductivity	ASTM D 177	BTU-in/hr-ft² • °F	0.2
Coefficient of linear thermal expansion - parallel	ASTM D 696	in/in °F	3.8 • 10 ⁵
Flammability**	UL-94	class	HB to V0
Electrical			
Volume Resistivity	ASTM D 257	Ω • cm	8.2 • 10 ¹⁶
Surface Resistivity, dry	ASTM D 257	Ω	6 • 10 ¹⁵
Dissipation Factor 1Mhz	ASTM D 150		0.009
Dissipation Factor 100Hz	ASTM D 150		0.0006

DIMENSIONS

Thickness: 0.027" to 0.590"
Width: 39.37" to 84.25"
Length: 19.68" to 236.22"

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

COLORS

Transparent: clear, brown, smoke brown, grey, smoke grey, blue, light green

Translucent: Opal, diffuser

IR Block: green, silver, pearl

Opaque: black, blue

TYPES

Monogal PC solid GP No UV protective layers

Monogal 1UV* PC solid, 1 side UV protective layer

Monogal 2UV* PC solid, 2 sides with UV protective layers

Monogal F PC solid, fire retardant improved, 1 or 2 sides UV protective layer

Monogal Pax Excellent formability, easy machining, for low temp applications, opaque

Monogal Embossed (on 1 side)

Monogal TOP thin optical sheet

Monogal LED for LED illumination

Monogal AG - Anti-Glare surface, 2 sides UV protective layers

Embossed sheets

Pattern	Thickness	Width	Length
Lizard	0.067" - 0.197"	39.37" - 80.71"	19.68" - 236.22"
G-Tech	0.067" - 0.197"	39.37" - 80.71"	19.68" - 236.22"
K 12	0.110" - 0.197"	23.62" - 59.05"	19.68" - 236.22"
Pinspot	0.110" - 0.197"	23.62" - 59.05"	19.68" - 236.22"
Cracked ice	0.110" - 0.197"	23.62" - 59.05"	19.68" - 236.22"
Non reflect	0.039" - 0.118"	49.21"	19.68" - 236.22"
Aqua	0.067" - 0.197"	23.62" - 59.05"	19.68" - 236.22"

* **10 Year Limited Guarantee** Monogal (Plazcarb) sheets are guaranteed for 10 years for light transmission and stability of mechanical properties as detailed in our guarantee.

** **Flammability** for Monogal Standard Grade: UL-94 HB (0.03" to 0.39") - Monogal F Grade: HL-94 V0 (from 0.08" to 0.5")