

# 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. Polygal became few years later a pioneer in the production 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 meeting the needs of our customers and guaranteeing high quality, flexibility and swift response – these commitments are the 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

**Plazit 2001**  
plazit@plazit-polygal.com  
**Polygal Industries**  
plygal@plazit-polygal.com

### SOUTH AMERICA

**Polygal SUD**  
(Chile)  
ventas@polygal.cl

### EUROPE

**Plazit Iberica** (Spain)  
**Panchim** (Bulgaria)  
plazit@plazit-polygal.com

### RUSSIA & CIS

**Polygal Vostok**  
(Russia)  
vostok@plazit-polygal.com

### NORTH AMERICA

**Polygal Inc**  
(USA)  
usasales@plazit-polygal.com

### FAR EAST & ASIA

asia@plazit-polygal.com

### AFRICA

africa@plazit-polygal.com

[www.plazit-polygal.com](http://www.plazit-polygal.com)





## 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 most demanding applications of machinery, automotive, safety and construction industry – skylights, flat or curved glazing and a wide range of architectural projects. 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	ISO 1183	g/cm <sup>3</sup>	1.2
Light transmission (Depending on thickness)	ASTM D 1003	%	81 - 90
Refractive index	ISO 489		1,585
<b>Mechanical</b>			
Tensile Strength at yield	ISO 527-2	MPa	60
Tensile Modulus	ISO 527-2	MPa	2300
Elongation at break	ISO 527-2	%	>100
Elongation at yield		%	6
Flexural Modulus	ISO 178	MPa	2330
Charpy Un-notched	ISO 179	kJ/m <sup>2</sup>	Not Break
Izod Impact notched	ISO 180a	kJ/m <sup>2</sup>	>65
<b>Thermal</b>			
Temp of deflection (HDT) Under load of 1.8MPa	ISO 75-1	°C	130
Vicat softening temp (50°C/h 50N)	ISO 306	°C	144
Thermal conductivity	DIN52612	W/m x °C	0.2
Coefficient of linear thermal expansion 0-50°C	ISO 11359	mm/(m x 1°C)	0.070
GWFI (Glow-Wire Flammability index)	IEC60695-2	°C	900
<b>Electrical</b>			
Volume Resistivity	IES 60093	Ω x cm	3 x 10 <sup>14</sup>
Surface Resistivity, dry	IEC 60093	Ω	6 x 10 <sup>15</sup>
Dissipation Factor 1Mhz	IEC 60250		0.009
Dissipation Factor 100Hz	IEC 60250		0.0006

### DIMENSIONS

Thickness (mm): 0.70 to 15  
 Width (mm): 1000 to 2140  
 Length (mm): 500 to 6000

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

### Embossed sheets

Pattern	Thickness (mm)	Width (mm)	Length (mm)
Lizard	1.7 - 5.0	1000 - 2050	500 - 6000
G-Tech	1.7 - 5.0	1000 - 2050	500 - 6000
K 12	2.8 - 5.0	600 - 1500	500 - 6000
Pinspot	2.8 - 5.0	600 - 1500	500 - 6000
Cracked ice	2.8 - 5.0	600 - 1500	500 - 6000
Non reflect	1.0 - 3.0	1250	500 - 6000
Aqua	1.7 - 5.0	600 - 1500	500 - 6000



K-12 prismatic



G-Tech

### Monogal (Plazcarb) F flammability

Standard	Classification
EN13501	B <sub>s1,d0</sub>
BS 476/7	Class 1
NSP 92501,4	M2
DIN 4102	B1
UL 94	V0

\* **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.