

MONOGAL / PLAZCARB

EXTRUDED POLYCARBONATE (PC) SHEETS

SOLID SHEETS 



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Monogal / Plazcarb sheets are made from Polycarbonate, the transparent steel! Virtually unbreakable. Combine excellent transparency with outstanding toughness and heat resistance. Available with one or two sides UV protection, with excellent outdoor weathering performance. Meet the most demanding applications. Sheets are produced according to EN 16240:2013 standard.

APPLICATIONS



Glazing



Roofing and windows



Noise reduction barriers



Lighting, Illumination and signage



Sky light / Domes



Wind shields



Safety



Automotive

MAIN ADVANTAGES

- High clarity and light transmission: the transparent steel!
- Excellent impact strength
- Ductile - excellent toughness
- Excellent stiffness and strength
- Excellent dimensional stability - high heat resistance
- Lightweight. Half weight of glass
- Can be UV protected, excellent weathering and ageing resistance. Life-long UV-resistant
- 10-year limited warranty
- Easily handled, machined and thermoformed
- Cold curving capability
- No hazardous substances
- Excellent fire behavior: self-extinguish
- Environment friendly-100% recyclable
- REACH and RoHS declarations

Typical Properties	Method	Units	Plazcarb (R8000)
General			
Density	ISO 1183	g/cm ³	1.2
Water Absorption	ISO 62 (I)	%	0.15
Flammability (thickness dependent)	UL94		HB,V2
Flammability (2-5 mm)	Euroclass EN13501		B,s1,do
Mechanical			
Tensile Strength	ISO 527-2	MPa	60
Elongation at break	ISO 527-2	%	6
Tensile Modulus	ISO 527-2	MPa	2300
Flexural Strength	ISO 178	MPa	90
Flexural Modulus	ISO 178	MPa	2300
Impact Resistance (Charpy unnotched)	ISO 179/1fu	kJ/m ²	NoBreak
Impact Resistance (Izod notched)	ISO 180/1A	kJ/m ²	>65
Optical			
Refractive Index	ISO 489		1.585
Light Transmission (thickness dependent)	ASTM D1003	%	81-90
Haze (3mm transparent sheet)	ASTM D1003	%	<1
Thermal			
Vicat Softening Temp.(50N)	ISO 306	°C	144
Heat Deflection Temp. (1.82 MPa)	ISO 75-1	°C	130
Coeff. of Linear Thermal Expansion (0-500C)	ISO 11359-2	µm/m°C	65
Thermal Conductivity	ASTM C177	W/mK	0.2
Maximum Continuous Service Temp.		°C	100
Maximum Short Time Service Temp.		°C	120
Minimum Temp.		°C	-50
Electrical			
Dielectric Constant (50Hz)	DIN 53483		3.0
Dissipation Factor tanδ (100Hz)	DIN 53483		0.0006
Dissipation Factor tanδ (1MHz)	DIN 53483		0.009
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 0.5 – 19.0 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 and blue.

Grades Monogal / Plazcarb F - Fire retardant grade. V0 according to UL94. Specific thicknesses.

Monogal/ Plazcarb IR Solar - Blocks IR light transmission reducing the heat load across the sheet.

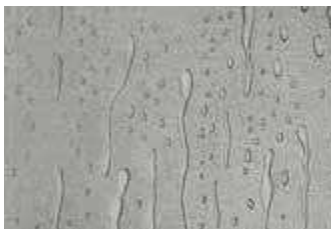
Monogal/ Plazcarb TOP - Clear sheets specially designed for optical applications. Available from 0.5 to 2.0 mm thickness, limited to specific sizes.

Monogal / Plazcarb FA - Special PC grade, non UV-protected or stabilized, produced from food contact approved raw materials.

Chairmat - Textured polycarbonate sheets specially designed for chair mats.

EMBOSSING PATTERNS

Monogal / Plazcarb sheets are available with different embossing patterns (limited to specific thicknesses and sizes)



Aqua



Pinspot



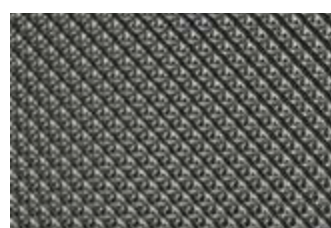
Cracked Ice



Non Reflective



G-Tech



K-12

All information, recommendations or technical advice given in this technical sheet, is given in good faith, to the best of our knowledge and based on our present experience and procedures. However, no liability or other legal responsibility is assumed for the full adequacy, accuracy or completeness of this information.

We reserve the right to make any changes, according to technological progress and further developments. The customer is not released from the obligation to conduct careful inspection and testing of incoming goods.

Product design using Monogal / Plazcarb sheets must be carried out only by qualified experts in the sole responsibility of the customer. Performance should be verified by testing, carried out only by qualified experts in the sole responsibility of the customer.