

Işık Plastik offers flat solid polycarbonate sheet in different configurations such as transparent & translucent & thermal resistant properties. Policam solid pc sheet meets customer expectation in any specifications of color, light transmission and heat insulation requirements with best quality.

Işık Plastik supplies sheets with co-extruded UV protective layer on both sides which to be applied in outdoor applications.

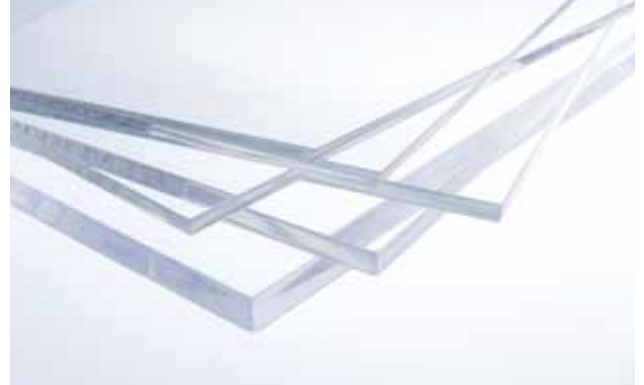
This layer protects sheet against UV exposure.

Properties of Policam Solid Polycarbonate Sheets

- Very high impact resistance.
- Up to %88 light transmission. (Depends on sheet thickness)
- B s1 d0 (4;5 and 6 mm thicknesses)
- Excellent thermoforming capabilities
- Outstanding weatherability
- Easy fabrication
- Cutting with a shear (up to 4mm)
- Excellent resistance to dilute acids and mineral oils.

Possible Applications of Policam Solid Polycarbonate Sheets:

- Building windows
- Light-transmitting roof cover and glazed curtain walls
- Natural sunlight construction equipment in roofs and walls (Skylights, sidelights)
- Transparent indoor applications as partitions and rooms
- Noise barriers on side of roads & highways and noisy public places such as stadium & sport centers, arenas, fitness centers, schoolyards etc.
- Instrumental panel display screens, backlit signage and displays, graphic overlay panels, illuminated menu boards and vending machine graphics, point-of-purchase posters, retractable banner stands, tradeshow booth panels, transit advertising and bus shelter advertising.
- Lighting & electric components, lighting fixtures.
- Windows for transportation vehicles (trains, buses, aircrafts, ships & boats etc.)
- Safety applications such as security force shields, safety glasses, helmet visors.



General Properties

Method	Unit	Value	
Density	ISO 1183-1	gr/cm ³	1,2
Water absorption saturation water at 23 °C	ISO 62	%	0.30
Water absorption equilibrium 23 °C, 50% relative humidity	ISO 62	%	0.12
Forming temperature		°C	180-210

MECHANICAL PROPERTIES

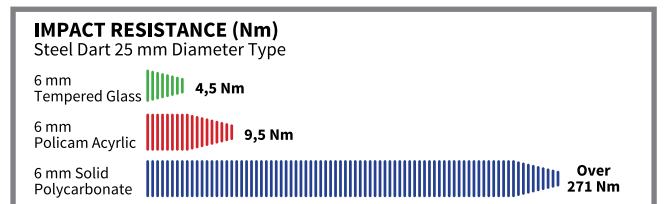
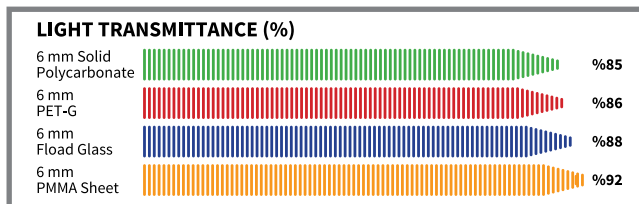
Tensile modulus	ISO 527-1,-2	MPa	2350
Yield stress	ISO 527-1,-2	MPa	65
Yield strain	ISO 527-1,-2	%	6.3
Nominal strain at break	ISO 527-1,-2	%	> 50
Stress at break	ISO 527-1,-2	MPa	70
Strain at break	ISO 527-1,-2	%	120
Charpy impact strength	ISO 179-1	kJ/m ²	No Break

THERMAL PROPERTIES

Vicat softening temperature	ISO 306	°C	148
Thermal conductivity 23 °C	ISO 8302	W/(m•K)	0,2
Coefficient of linear thermal expansion, parallel 23 to 55 °C	ISO 11359-1	mm/m°C	0,065
Temperature of deflection under load 1.80 MPa	ISO 75-1,-2	°C	128
Temperature of deflection under load 0.45 MPa	ISO 75-1,-2	°C	140

ELECTRICAL PROPERTIES

Volume resistivity	IEC 60093	Ohm.cm	1,00E+14
Electric strength	IEC 60243-1	kV/mm	34
Surface resistivity	IEC 60093	Ohm	1,00E+16
Dissipation Factor - 100 Hz	IEC 60250	10.-4	5



APPLICATION AREAS

Noise Barriers

POLICAM SoundBlock® is a specifically developed and CE certified polycarbonate sheet to be used in noise barriers.

- UV protection on both sides.
- Good weathering resistance,
- 31 dB noise reduction as per EN 14388 (for 12 mm thickness)

Lighting & Electric Components

Lighting fixtures today are getting minimalistic and thinner with the introduction of LEDs. Thanks to its high temperature resistance (maximum continuous working temperature 130°C polycarbonate is increasingly used in today's lighting fixtures. POLICAM specifically develops polycarbonate sheets with different light transmission values for lighting fixtures and solutions. They provide maximum light transmission (88%) and optimum light diffusion.

Acoustic Values (EN 14388)	
Thickness mm	Sound Reduction Values (dB)
8 mm	28
12 mm	31

* Certified by Accredited Laboratory

Construction

Architects and engineers ask for heavy duty, reliable, light weight, custom color and yet reasonably priced transparent materials. All these requirements are combined in one product:

POLICAM Solid Polycarbonate. It is 200 times stronger than glass and virtually unbreakable, produced with 10 years limited warranty, less than half of the density of glass, easily custom colored and reasonably priced comparing glass carrying the same specifications.

Size of Policam Solid Polycarbonate Sheets		
Max. width (mm)	*Standard Length (mm)	Width & Length Tolerance
2050	3050	- 0,1 % ; +0,3 %

* Depends on Customer Request

Safety

No other material could replace polycarbonate in safety applications. POLICAM polycarbonate sheets are virtually unbreakable. Half the weight of glass, they provide ease of use and carrying. Polycarbonate is very easily drilled, cut and edge polished. Deep draws and sharp corners can be obtained by thermoforming.

PC SOLID Sheets Fire Performance		
Method	Classification	Thickness
EN 13501	B, s1, d0	4;5;6 mm
NF 92 501/505	M2	8mm**
UL-94	V0	10mm***

* For Additional Information Please Contact to ISIK PLASTIK.
** With IR Protective
*** With FR-Retardant

Instrument Panel Display Screens

Polycarbonate sheet are excellent choice for backlit signage and displays, graphic overlay panels, illuminated menu boards and vending machine graphics, point-of-purchase posters, retractable banner stands, tradeshow booth panels, transit advertising and bus shelter advertising.

Thickness of Solid Polycarbonate Sheets	
Thickness in mm	Overall thickness tolerance (mm)
1,4	± 0,15
1,5	± 0,15
2	±0,2
3	±0,3
4	±0,4
5	±0,5
6	±0,3
7	±0,35
8	±0,4
9	±0,45
10	±0,5
12	±0,6
15	±0,75

According to EN 16240

Light Transmittance (ASTM D 1003) of Policam Solid Polycarbonate Sheets							
Thickness in mm	Standard Colours						
	Clear	White	Diffuser	Green	Blue	Fume	Bronze
1,4	88						
1,5	88						
2	88	30					20/50
3	87	30/60	50	17,5			20/50
4	87	30			42		20/50
5	86	25			42	7	16/50
6	85	25			42	8	16
7		20					
8	84	20					14,5/50
9		13,5					
10	82	15			32		14,5
12	81				32		50
15	79						

* Custom colours are available upon request subject to a minimum order.