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POLYCARBONATE (PC) SOLID SHEETS

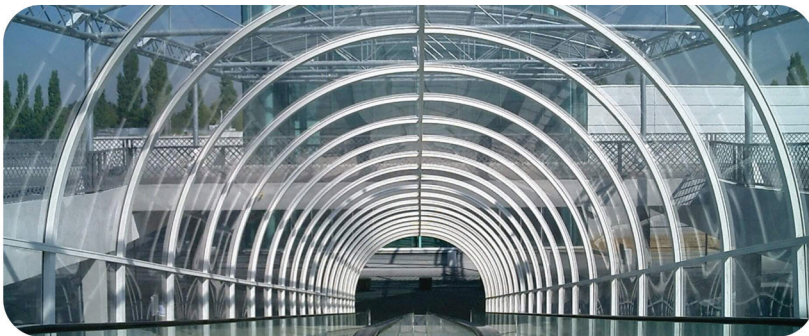
Brings Bright In...



POLYCARBONATE (PC) SOLID SHEETS

APPLICATION AREAS

- Facade applications
- Winter gardens
- Parking lots
- Underpasses
- Walking paths
- Entrance eaves
- Sports facilities
- City Furniture
- Lighting and Electrical Sector
- Factory windows and skylights
- Overpasses
- Greenhouses
- Patio and terrace roofs
- Roof skylights
- Interior partitions
- Sound barriers
- All Kinds of Means of Transportation
- Pool cover systems
- Stair and balcony railings
- Billboards
- Office furniture
- Exhibition stands
- Bus stops
- Security Shields
- Interior and Transparent Room Panels



ADVANTAGES OF POLYCARBONATE SOLID SHEET

- High clarity and light transmission
- Transparent steel!
- Excellent impact resistance
- Excellent bendable rigidity
- Excellent rigidity and durability
- Excellent dimensional stability
- High heat resistance
- Excellent wear and aging resistance thanks to UV protection
- Lifetime resistance to UV rays
- 10 year limited warranty
- Easily processed and shaped
- Cold bending can be done
- Does not contain dangerous substances
- Excellent fire reaction to Self-extinguishing ability
- Environmentally friendly 100% recyclable
- REACH RoHS statements
- Up to 88% light transmittance
- Excellent surface resistance to acidic and mineral oils

GENERAL FEATURES

	Method	Unit	Value
Density	ISO 1183-1	g/cm ³	1,2
Water absorption saturation (water 23 °C)	ISO 62	%	0,30
Water absorption balance (23 °C , at 50% relative humidity)	ISO 62	%	0,12
Thermoforming temperature		°C	180-210
MECHANICAL PROPERTIES			
Tension Module	ISO 527-1,-2	MPa	2350
Yield Stress	ISO 527-1,-2	MPa	65
Productivity Tension	ISO 527-1,-2	%	6,3
Nominal Break Voltage	ISO 527-1,-2	%	>50
Refractive Stress	ISO 527-1,-2	MPa	70
Rupture Tension	ISO 527-1,-2	%	120
Charpy Impact Resistance	ISO 179-1	kJ/m ²	Ara Yok.
THERMAL PROPERTIES			
Vicat Softening Temperature	ISO 306	°C	148
Heat Conductivity 23 °C	ISO 8302	W/(m-K)	0,2
Linear Thermal Expansion Factor, 23 to 55 °C	ISO 11359-1	mm/m °C	0,065
1,80 MPa Deflection temperature under load	ISO 75-1,-2	°C	128
0,45 MPa Deflection temperature under load	ISO 75-1,-2	°C	140
ELECTRICAL PROPERTIES			
Skin Resistance	IEC 60093	Ohm.cm	1,00E+14
Electrical Force	IEC 60243-1	kV/mm	34
Surface Resistance	IEC 60093	Ohm	1,00E+16
Dissipation Factor - 100 Hz	IEC 60250	10.-4	5

Acoustic Values

Thickness	Noise Reduction
8mm	28
10mm	31
12mm	34
15mm	37

Polycarbonate Solid Sheet Fire Resistance

Method	Class	Thickness
EN 13501	B, s1, d0	4;5;6 mm
NF 92 501/505	M2	8mm
UL-94	V0	10mm

Polycarbonate Solid Sheet Dimensions

Maximum Width (mm)	Standard Length (mm)
2050	3050

Solid Sheet Production Tolerances

Length	± 2 mm
Width	± 1 mm
Diagonal	≤ 3 mm

Transparent, White, Bronze, Diffuser, Blue, Gray and all desired colors can be produced.



Polycarbonate and Glass Weight Table

Sheet Thickness (mm)	PC Solid (kg/m ²)	Glass (kg/m ²)
1	1,2	2,5
1,5	1,8	3,75
2	2,4	5
3	3,6	7,75
4	4,8	10
5	6	12,5
6	7,2	15
8	9,6	20
10	12	25
12	14,4	30
15	18	37,5

Polycarbonate Solid Sheet Thickness Tolerances

Thickness (mm)	Tolerances (mm)
1	± 0,15
1,5	± 0,15
2	± 0,2
3	± 0,3
4	± 0,4
5	± 0,5
6	± 0,3
8	± 0,4
9	± 0,45
10	± 0,5
12	± 0,6
15	± 0,75

Polycarbonate Solid Sheets Light Transmittance

Thickness (mm)	Colors			
	Transparent	Bronze	Diffuser	White
1	90			
2	89			30
3	88	25	50	28
4	87	25	46	28
5	86	25		26
6	86	20	40	26
8	86	16		22
10	84	14		18
12	82	12		
15	80			

Thermal Insulation of PC Solid Sheet Against Glass

Thickness (mm)	Teknorm U Value (W/m ² - K)	Glass U Value (W/m ² - K)
3	5,47	5,81
5	5,19	5,72
6	5,07	5,68
8	4,84	5,6
10	4,63	5,52
12	4,43	5,45

PC SOLID Sheet Quantities Per Pallet

Thickness	Size
	(2050 x 3050)
1,5 mm	100 Pcs
1,8 mm	85 Pcs
2 mm	75 Pcs
3 mm	50 Pcs
4 mm	40 Pcs
5 mm	30 Pcs
6 mm	25 Pcs
8 mm	20 Pcs
10 mm	15 Pcs
12 mm	13 Pcs
15 mm	10 Pcs

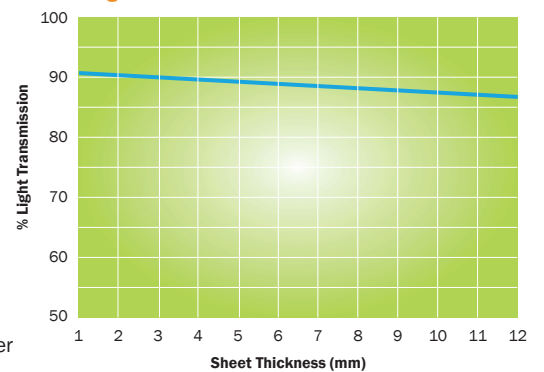
IMPACT RESISTANCE (Nm)

6mm Tempered Glass	4,5 Nm
6mm Acrylic	9,5 Nm
6mm Solid Polycarbonate	271 Nm Over

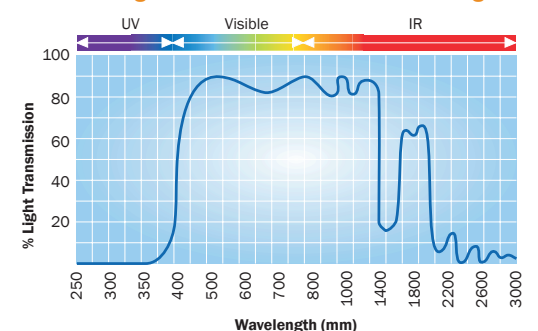
LIGHT TRANSMISSION (%)

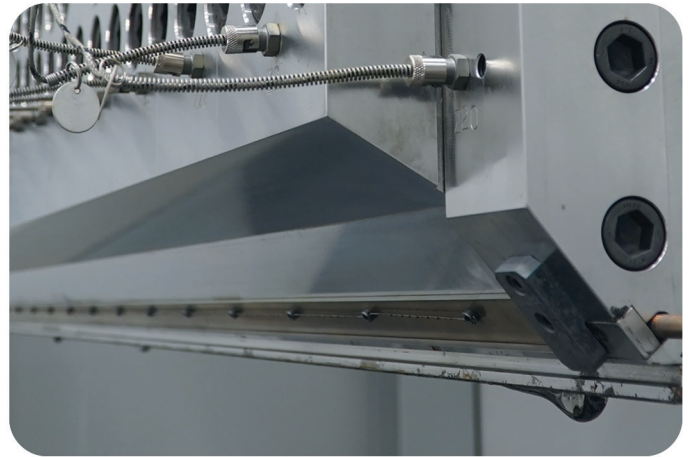
6mm Solid Polycarbonate	%86
6mm PET-G	%87
6mm Flat Glass	%88
6mm PMMA Sheet	%92

% Light Transmission and Sheet Thickness

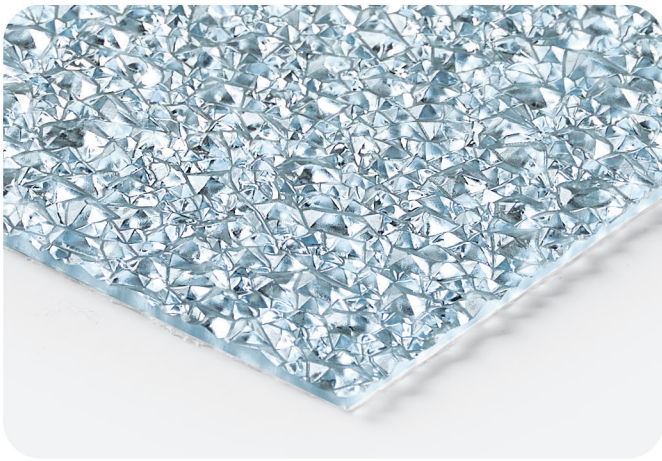


% Light Transmission and Wavelength

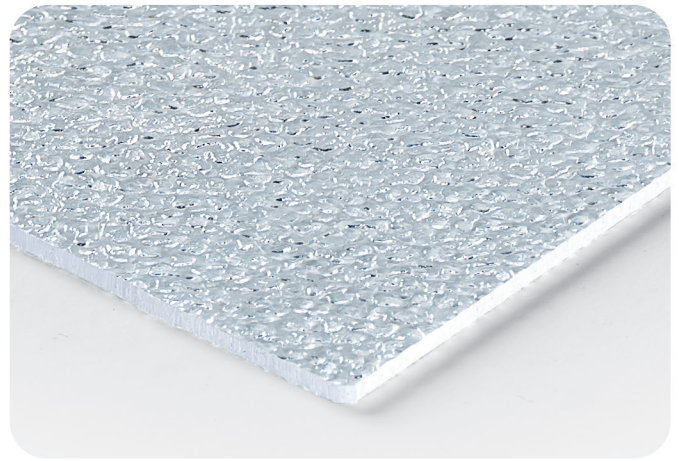




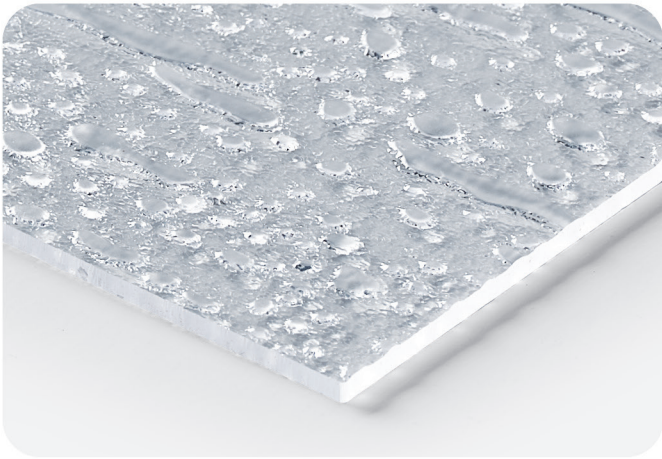
PC SOLID EMBOSS SHEETS



DIAMOND



RAINDROP



AQUA



MATT

EMBOSSED PATTERN TYPES

	Thickness (mm)	Thickness Tolerance (%)	Maximum Width (mm)	Standard Length (mm)	Width & Length Tolerances	Color
Diamond	1,5 - 10	+/- 0,3	2100	3000 3050 6000	-0,1 %, +0,3 %	Can be Produced in Requested Color
Raindrop						
Matt						
Aqua						





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