



TECHNICAL DATA SHEET POLYCARBONATE SHEET (PC)

1. PHYSICAL PROPERTIES

PROPERTY	UNIT	VALUE	TEST METHOD
Material	-	Polycarbonate (PC)	-
Density	g/cm ³	1.20	ASTM D792
Specific Gravity	kg/m ³	1200	ASTM D792
Water Absorption (24h)	%	0.15 – 0.35	ASTM D570
Refractive Index	-	1.586	ASTM D542
Flammability	-	Self-extinguishing	UL 94

2. MECHANICAL PROPERTIES

PROPERTY	UNIT	VALUE	TEST METHOD
Tensile Strength (Yield)	MPa	60 – 70	ASTM D638
Flexural Strength	MPa	90 – 100	ASTM D790
Elastic Modulus	MPa	2300	ASTM D790
Izod Impact Strength (Notched)	kJ/m ²	80 – 100	ASTM D256
Rockwell Hardness	M	M70 – M75	ASTM D785

3. THERMAL PROPERTIES

PROPERTY	UNIT	VALUE	TEST METHOD
Service Temperature	°C	-40 to +120	-
Vicat Softening Temperature	°C	145 – 150	ASTM D1525
Melting Point	°C	~ 260	-
Coefficient of Thermal Expansion	mm/m-°C	0.065	ASTM D696
Thermal Conductivity	W/m-K	0.20	ASTM C177
Flammability Rating	-	B1 (Self-extinguishing)	DIN 4102

4. OPTICAL PROPERTIES

PROPERTY	UNIT	VALUE	TEST METHOD
Light Transmission (Clear)	%	88 – 90	ASTM D1003
Light Transmission (Bronze)	%	45 – 55	ASTM D1003
Light Transmission (Grey)	%	40 – 50	ASTM D1003
Light Transmission (Opal)	%	30 – 40	ASTM D1003
UV Protection	-	Co-extruded UV	-

5. STANDARD THICKNESSES

Thickness (mm)
2 – 3 – 4 – 5 – 6 – 8 – 10 – 12 – 16 – 20 – 25 – 32

6. STANDARD SIZES

Width (mm)	Length (mm)
2100	6000
2100	12000

7. APPROXIMATE WEIGHT OF SOLID SHEET

Thickness (mm)	Weight (kg/m ²)
2	2.4
3	3.6
4	4.8
5	6.0
6	7.2
8	9.6
10	12.0
12	14.4

8. MINIMUM COLD BENDING RADIUS

Thickness (mm)	Minimum Radius (mm)
4	700
6	1050
8	1400
10	1750
12	2100

Formula: $R = 175 \times \text{Thickness}$

9. CHEMICAL RESISTANCE

RESISTANT TO	NOT RESISTANT TO
Water, Steam	Acetone
Dilute Acids	Benzene
Dilute Alkalis	Toluene
Salts	Xylene
Alcohols	Chloroform
Oils & Greases	Aromatic Hydrocarbons
Many Organic Solvents	Strong Oxidizing Agents

10. TYPICAL APPLICATIONS

- Skylights and Roofing
- Canopies and Awnings
- Greenhouses
- Industrial Roofing and Cladding
- Machine Guards and Safety Glazing
- Sound Barriers
- Advertising Signage
- Bus Shelters and Public Structures
- Partitions and Interior Applications
- Food & Pharmaceutical Industry
- Swimming Pool Enclosures

11. ADDITIONAL INFORMATION

UV Protection	One side / Two sides	Color Options
Surface Finish	Glossy, Embossed, Matte	Color, Bronze, Grey, Opting
Processing	Cold, Bronze, Grey, Opal, Blue, Green, etc.	
Warranty	10 – 15 years (Against UV yellowing and loss of impact)	
Certification	ISO 9001, ISO 14001	



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