



RIGID MEDIA PRODUCT SHEET



POLYCARBONATE

Cgate Polycarbonate extruded sheet is a very durable sheet that has high impact resistance. CGPC 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, CGPC 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.

APPLICATIONS

Roofing and windows
Glazing
Wind shields
Noise reduction barriers
Street furniture
Lighting and signage
Thermoforming
Vacuum forming
Fabricated parts

FEATURES & BENEFITS

Virtually unbreakable
High impact resistance
High clarity & light transmission
UV protective layer - 1 or 2 sides
High flame resistant
Half the weight of glass
Easy to machine, handle & install

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

COLOURS

Transparent: clear brown, smoke brown, grey, smoke grey, blue, light green

Translucent: opal, diffuser

IR Block: green, silver, pearl

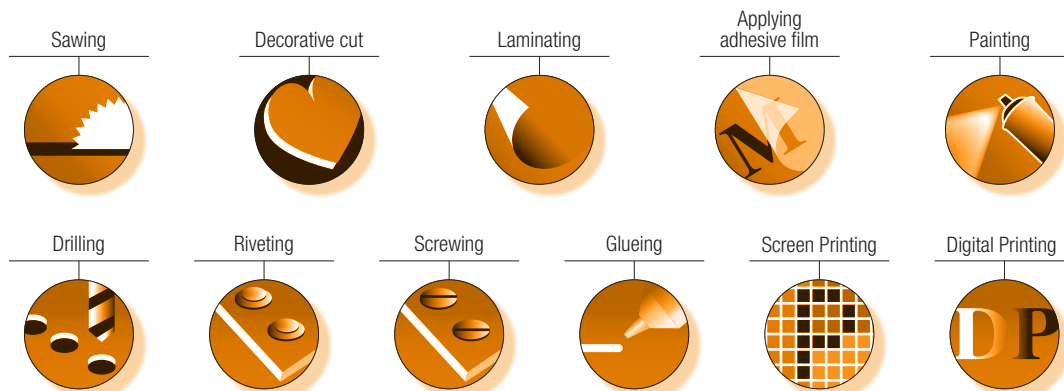
Opaque: black, blue

TYPES

CGPC: PC solid GP NO UV protective layers
CGPC1UV: PC solid, 1 side UV protective layer
CGPC2UV: PC solid, 2 sides with UV protective layers
CGPC F: PC solid, fire retardant improved, 1 or 2 sides UV protective layer
CGPC Pax: Excellent formability, easy machining, for low temp applications
CGPC Embossed: (on 1 side)
CGPC TOP: Thin optical sheet
CGPC LED: for LED illumination



Processing Methods





POLYCARBONATE

General Properties	Method	Units	Value
Density	ISO 1183	g/cm ³	1.2
Light transmission (depending on thickness)	ASTM D 1003	%	81-90
Refractive index	ISO 489		1,585

Mechanical

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 ²	Not Break
Izod Impact notched	ISO 180a	kJ/m ²	>65

Thermal

Temp of deflection (HDT) under load of 1.8MPa	ISO75-1	°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

Electrical

Volume Resistivity	IES 60093	Ω x cm	3 x 10 ¹⁴
Surface Resistivity, dry	IEC 60093	Ω	3 x 10 ¹⁵
Dissipation Factor 1Mhz	IE360250		0.009
Dissipation Factor 100Hz	IEC 60250		0.0006

GGATE POLYCARBONATE FLAMABILITY

Standard	Classification
EN135501	B, s1, d0
BS 476/7	Class1
NSP 92501,4	M2
DIN 4102	B1
UL 94	V0