

C Polycarbonate UV2 Solid Sheet

Product description: Polycarbonate solid sheet with two sides co-extrusion UV layer

Benefits: UV resistant, high impact, ten (10) years limited product warranty against breakage, yellowing, and loss of light transmission.

Applications: construction, transportation, industry, etc.

Color: Clear/on request

Property	Standard	Condition	Unit	Values
Physical				
Density	ASTM D792	23°C	g/cm ³	1.20
Light Transmission	ASTM D1003	3 mm	%	88
	ASTM D1003	6 mm	%	85
	ASTM D1003	10 mm	%	83
	ASTM D1003	12.7 mm	%	80
Poisson's Ratio	ASTM E132	-	-	0.38
Water Absorption	ASTM D570	24 hours	%	0.15
Mechanical				
Tensile Strength , Ultimate	ASTM D638	50mm/min	Mpa	65
Tensile Strength , Yield	ASTM D638	50mm/min	Mpa	61
Tensile Modulus	ASTM D638	1 mm/min	Mpa	2350
Elongation at Break	ASTM D638	50mm/min	%	100
Flexural Strength	ASTM D790	2mm/min	Mpa	92
Flexural Modulus	ASTM D790	2mm/min	Mpa	2350
Notched Izod Impact	ASTM D256	23°C	J/m	850
Unnotched Izod Impact	ASTM D256	23°C	J/m	No Break
Rockwell Hardness	ASTM D780	-	-	R120/M70
Total Energy	ASTM D3763	3 mm	J	≥60
Thermal				
Heat Deflection Temperature	ASTM D648	1.82 Mpa 120°C/h	°C	127
		0.45 Mpa 120°C/h	°C	138
Coefficient of Thermal Expansion	ASTM D696	23-55°C	10 ⁻⁵ /K	6.6

Electrical

Surface Resistivity	IEC 60093	-	Ω	1.00E+16
Volume Resistivity	IEC 60093	-	$\Omega \cdot m$	1.00E+14

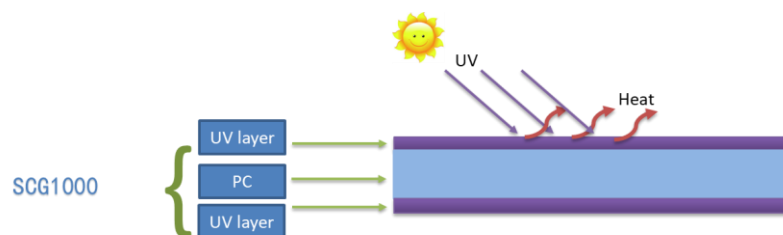
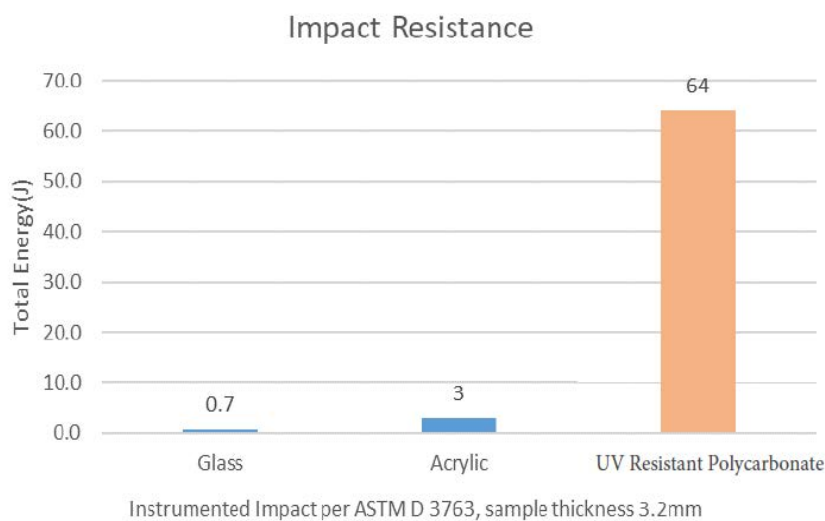
Flammability

Flame Class	UL 94	1.5 mm	Class	V-2
Horizontal Burn , AEB	ASTM D635	6 mm	in	≤ 1
Glow-wire ignition temperature	IEC60695-2-12	3 mm	$^{\circ}C$	960
Ignition Temperature, Self	ASTM D 1929	6 mm	$^{\circ}C(^{\circ}F)$	560(1040)
Ignition Temperature, Flash	ASTM D 1929	6 mm	$^{\circ}C(^{\circ}F)$	450(842)
Smoke Density Rating*	ASTM D 2843	6 mm	-	≤ 75
Building Materials, surface-burning*	ASTM E84	1.5-6 mm	-	Class A

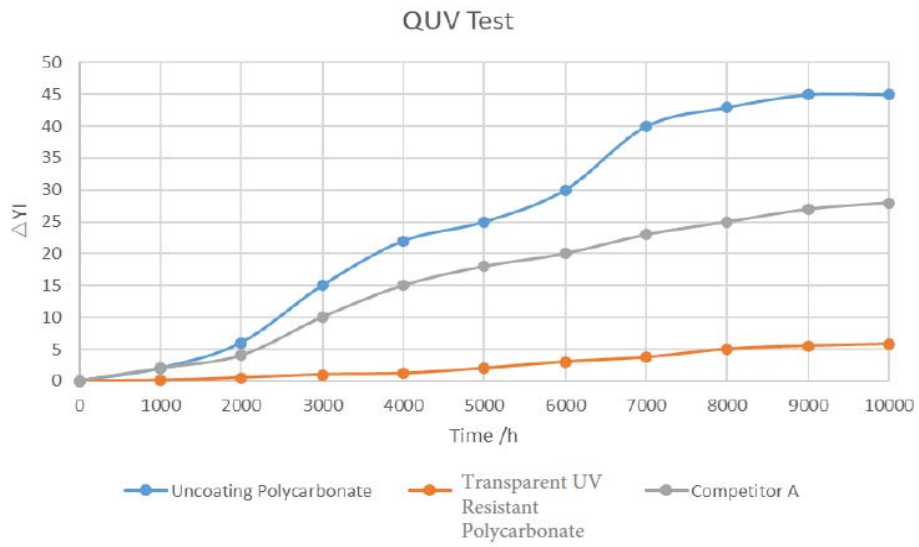
*only for flame retardant grade

- 1) Above values are typical values only, not specifications.
- 2) In case of colored products, these figures might vary slightly.

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The thickness of UV layer is not less than 50 μ m, completely blocking the harmful Ultraviolet radiation



QUV accelerated ultraviolet aging test



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Competitor A

After 10000hrs ultraviolet aging test, the color of SCG1000(left) ranges slightly, but the yellowness index of competitor B is very high.