

PRODUCT DATA SHEET (REV20250527)

PC / POLYCARBONATE **OPAQUE COLOURED FR** SHEET

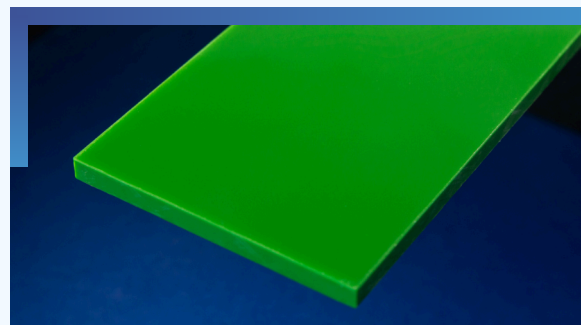
Flame-Retardant Opaque Polycarbonate for High-Safety Industrial and Electrical Applications.

SRT Plastics Opaque Coloured FR Polycarbonate is a flame-retardant opaque sheet designed for indoor applications where fire performance, impact strength, and thermal resistance are critical. Free from halogens and compliant with multiple international flammability standards—including UL 94 V0 and 5VA, glow wire, and oxygen index, this material is engineered for use in the electrical, mechanical, and equipment housing sectors.

This product also offers compatibility with plastic recycling workflows for added environmental and cost efficiency.

KEY ADVANTAGES

- Flame retardant: UL 94 V0 (1.5 mm) and 5VA (3 mm) certified
- Halogen-free formulation per DIN VDE 472 part 815
- High impact resistance and excellent thermal performance
- Glow wire resistance: passes 960°C at 1.6 mm (IEC 60695)
- Compliant with oxygen index of 35% (ISO 4589)
- Excellent electrical insulation and mechanical rigidity



TYPICAL APPLICATIONS

- Electrical and electronic equipment enclosures
- Machine covers and technical panels in fire-sensitive zones
- Flat, curved, or formed parts in industrial and utility systems
- Housing and covers for energy, lighting, and HVAC equipment
- Indoor safety signage, barriers, and fire-resistant partitions
- Packaging and components requiring high fire safety compliance



AVAILABLE DIMENSIONS

- Standard Sheet Sizes: 1250 x 2050 mm
- Thickness range: 1,5 - 8 mm
- Max Width: Smooth (00/00) - 2050 mm / Embossed - 1700 mm
- Embossing: 00/00, 00/35, 00/40
- Colours: Standard colours as well as customer specific colours on request



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The data is not exhaustive. All figures quoted are nominal. Any applications should be checked with SRT Plastics prior to use.

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PROPERTY	VALUE	UNIT	STANDARD
PHYSICAL PROPERTIES			
Density	1,2	g/cm ³	ISO 1183
Moisture Absorption 24h, 23°C, 50% RH	0,15	%	ISO 62
MECHANICAL PROPERTIES			
Tensile Strength (Yield / Break)	63 / 70	N/mm ²	ISO 527
Elongation (Yield / Break)	6 / 110	%	ISO 527
Elastic Modulus	>2300	N/mm ²	ISO 527-2
Flexural Modulus	>2300	N/mm ²	ISO 178
Izod Notched Impact (+23°C / -30°C)	>65 / 10	kJ/m ²	ISO 180/1A
Izod Unnotched Impact (-30°C)	NB	kJ/m ²	ISO 180/1U
Charpy Unnotched Impact (-40°C)	NB	kJ/m ²	ISO 179/1eU
Charpy Notched Impact (-30°C)	11	kJ/m ²	ISO 179/1eA
Charpy Notched Impact (+23°C)	75	kJ/m ²	ISO 179
Rockwell Hardness*	M70	R-scale	ISO 2039-2
Hardness, H358/30	95	N/mm ²	ISO 2039-1
THERMAL PROPERTIES			
Co-efficient of Linear Thermal Expansion (20°C - 70°C)	70x10 ⁻⁶	K ⁻¹	ISO 11359-2
Vicat Temperature VST/B1 20	145	°C	ISO 306
Vicat Temperature VST/B 50	141	°C	ISO 306
Heat Deflection Temperature HDT A (1,80N/mm ²)	127	°C	ISO 75
Heat Deflection Temperature HDT B (0,45N/mm ²)	138	°C	ISO 75
Thermal Conductivity	0,20	W/mK	ISO 8302
Ball Pressure Test 125°C +/- 2°C	Pass		IEC 60695-10-2

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PROPERTY	VALUE	UNIT	STANDARD
FIRE PROPERTIES			
UL 94 VO Rating	1,5	mm	UL 94
UL 94 5VA Rating	3	mm	UL 94
Glow Wire Flammability Index 850°C	Passes at 1	mm	IEC 60695-2-12
Glow Wire Flammability Index 960°C	Passes at 1,6	mm	IEC 60695-2-12
Oxygen Index (LOI)	35	%	ISO 4589
ELECTRICAL PROPERTIES			
Volume Resistivity, Dry	$>10^{14}$	Ωm	IEC 60093
Surface Resistivity, Dry	$>10^{15}$	Ω	IEC 60093
Dielectric Strength	17	kV/mm	IEC 60243-1
Dissipation Factor (Tan δ), Dry, 50Hz	0,001	-	IEC 60250
Relative Permittivity 50Hz	2,7	-	IEC 60250
Relative Permittivity 1HMz	2,7	-	IEC 60250

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