PRODUCT DATA SHEET (REV20250527)

PC / POLYCARBONATE **COLOURED TRANSPARENT UV SC** SHEET

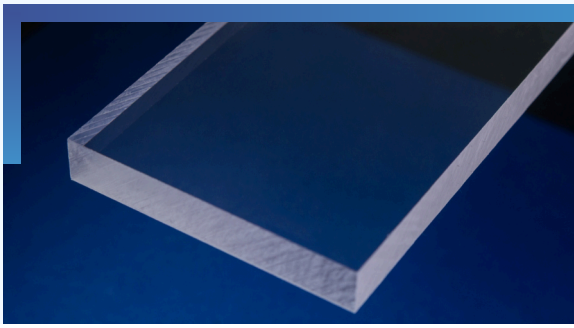
Solar-Controlled Transparent Polycarbonate for Heat-Reducing Roof and Façade Glazing

SRT Plastics supplies Polycarbonate Coloured Transparent UV SC—a smart solar-control sheet developed to reflect and absorb infrared (IR) radiation, significantly reducing heat build-up without compromising light transmission or clarity.

These coloured sheets are ideal for architectural and agricultural applications where thermal comfort, energy efficiency, and high durability are essential. Thanks to dual-sided UV protection and excellent mechanical performance, UV SC sheets are a lightweight, high-impact alternative to glass in demanding roof and façade structures.

KEY ADVANTAGES

- Solar control tint absorbs infrared heat and reduces interior temperature
- Significantly lowers cooling/air conditioning costs
- Over 10× stronger than impact-modified acrylic (PMMA)
- High light transmission with excellent clarity and surface finish
- Half the weight of glass for easier handling and installation
- Double-sided UV protection for long-lasting outdoor use



TYPICAL APPLICATIONS

- Roof glazing for commercial buildings, malls, and sports stadiums
- Domes, skylights, canopies, and conservatories
- Sidewalls and cladding for warehouses and greenhouses
- Smoke vents, sheds, and swimming pool covers
- Agricultural buildings: barns, lorry ports, and tractor shelters
- Railway stations, bus terminals, and pedestrian walkways

AVAILABLE DIMENSIONS

- Standard Sheet Sizes: 2050 x 3050 mm
- Thickness Range: 3 mm to 8 mm
- Custom sizes and thicknesses available upon request

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PROPERTY	VALUE	UNIT	STANDARD
PHYSICAL PROPERTIES			
Density	1,2	g/cm³	IS0 1183
Refractive index (20°C)	1.586	-	ISO 489
Moisture Absorption (24h, 23°C, 50% RH)	0.15	%	ISO 62
MECHANICAL PROPERTIES			
Tensile Strength (Yield / Break)	60 / 70	N/mm²	ISO 527
Elongation (Yield / Break)	6 / 110	%	ISO 527
Elastic Modulus	>2300	N/mm²	ISO 527
Flexural Modulus	>2300	N/mm²	ISO 178
Impact Strength (charpy unnotched, -40°C)	NB	kJ/m²	ISO 179
Impact Strength (charpy notched, -30°C)	11	kJ/m²	ISO 179
Izod Notched Impact (+23°C / -30°C)	65 / 10	kJ/m²	ISO 180
THERMAL PROPERTIES			
Heat Deflection Temp (HDT A - 1.80 Nmm²)	132	°C	ISO 75
Heat Deflection Temp (HDT B - 0.45 Nmm²)	142	°C	ISO 75
Vicat Softening Temp (VST - B120 / B50)	149 / 148 °C	°C	SO 306
Thermal Conductivity	0.20	W/m-K	ISO 8302
Linear Thermal Expansion (20°C - 70°C)	$65x10^{-6}$	K^{-1}	ISO 11359-2
ELECTRICAL PROPERTIES			
Volume Resistivity (Dry)	$>10^{14}$	Ω.m	IEC 62631
Surface Resistivity (Dry)	10^{16}	Ω	IEC 62631
Dielectric Strength (Dry)	30	kV/mm	IEC 60243
Dielectric Constant (Dry, 50Hz)	3		IEC 62631
Dielectric Constant (Dry 1MHz)	2.9		IEC 62631
Dissapation Factor (tan δ) (Dry 50Hz)	0.001		IEC 62631
Dissapation Factor (tan δ) (Dry 1MHz)	0.01		IEC 62631
SPECTRAL PROPERTIES			
Light Transmittance - Tv 3mm SG63	63	%	ASTM D1003
Light Transmittance - Tv 3mm SG74	74	%	ASTM D1003
Light Transmittance - Tv 3mm Grey	62	%	ASTM D1003
Total Solar Transmittance g - Tv 3mm SG63	51	%	EN 14500
Total Solar Transmittance g - Tv 3mm SG74	63	%	EN 14500
Total Solar Transmittance g - Tv 3mm Grey	68	%	EN 14500