



# POLYCARBONATE COLOURED® UV SC

POLYCARBONATE COLOURED® UV SC sheet is developed for applications where heat or Solar Radiation is reflected or absorbed providing low heat build up, good light transmission and ambiance. The Solar control product provides heat build up protection hence used for applications to reduce air conditioning costs.

POLYCARBONATE COLOURED® UV SC has a unique colour tint which allows the sheet to have outstanding transparency or clarity. The surface quality is superior due to our line capabilities to control the distribution of the UV protection layer.

Excellent fire performance complying requirements to EN 13501-1 (European fire classification for building and construction). In case of fire, the sheet will melt and allow venting where heat and smoke will be let out and therefore reduce the growth of fire by flame spread.

## POLYCARBONATE COLOURED® UV SC

### CONTROL BENEFITS:

- The sheet absorbs IR heat and creates a stable indoor climate
- More than 10 times the impact strength of high impact PMMA
- Easy to thermoform or fabricate
- Half the weight of glass
- Two sides UV as standard

### APPLICATION AREAS:

Building industry roofing, cladding, sidewalls, conservatories, domes, skylights, sheds, car ports, smoke vents, swimming pool covers, glasshouses, shopping center roofing, railway/metro station and stadia roofing. Agriculture greenhouses, lorry/tractor ports and farm/barn buildings.

### DELIVERY PROGRAM:

Standard size: 2050 x 3050 mm

Thickness range: 3 – 8 mm

Colour: SG 63, SG 74 and Grey 62

Special sizes and thicknesses on request.

## POLYCARBONATE COLOURED® UV SC TYPICAL PROPERTY VALUES

Property	Value	Unit	Standard
<b>Physical properties</b>			
Density	1,2	g/cm <sup>3</sup>	ISO 1183
Refractive index (20 °C)	1,586		ISO 489
Moisture absorption 24 h, 23 °C, 50% RH	0,15	%	ISO 62
<b>Mechanical properties</b>			
Tensile strength at yield (at break)	60 (70)	N/mm <sup>2</sup>	ISO 527
Elongation at yield (at break)	6 (110)	%	ISO 527
Elastic modulus	>2300	N/mm <sup>2</sup>	ISO 527
Flexural modulus	>2300	N/mm <sup>2</sup>	ISO 178
Charpy unnotched impact strength -40 °C	NB	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength -30 °C	11	kJ/m <sup>2</sup>	ISO 179/1eA
Izod notched impact strength +23 °C	65	kJ/m <sup>2</sup>	ISO 180/1A
Izod notched impact strength -30 °C	10	kJ/m <sup>2</sup>	ISO 180/1A
<b>Thermal properties</b>			
Coefficient of linear thermal expansion (20-70 °C)	65x10 <sup>-6</sup>	K <sup>-1</sup>	ISO 11359-2
Heat deflection temperature, HDT A (1,80 N/mm <sup>2</sup> )	132	°C	ISO 75
Heat deflection temperature, HDT B (0,45 N/mm <sup>2</sup> )	142	°C	ISO 75
Vicat temperature VST/B 120	149	°C	ISO 306
Vicat temperature VST/B 50	148	°C	ISO 306
Thermal conductivity	0,20	W/m.K	ISO 8302
<b>Electrical properties</b>			
Volume resistivity, dry	>10 <sup>14</sup>	Ω.m	IEC 62631
Surface resistivity, dry	10 <sup>16</sup>	Ω	IEC 62631
Dielectric strength, dry	30	kV/mm	IEC 60243
Dielectric constant, dry 50 Hz	3		IEC 62631
Dielectric constant, dry 1 MHz	2,9		IEC 62631
Dissipation factor (tan δ), dry 50 Hz	0,001		IEC 62631
Dissipation factor (tan δ), dry 1 MHz	0,01		IEC 62631
<b>Spectral properties</b>			
<b>Light transmittance Tv</b>			
3 mm SG 63	63	%	ASTM D1003
3 mm SG 74	74	%	ASTM D1003
3 mm Grey	62	%	ASTM D1003
<b>Total solar energy transmittance g</b>			
3 mm Green SG 63	51	%	EN 14500
3 mm Green SG 74	63	%	EN 14500
3 mm Grey	68	%	EN 14500

Properties reported here are typical values for polycarbonate. Arla Plast makes no representation that the material in any particular shipment will conform exactly to the values given. The above information is based upon experience and given in good faith. Due to many factors which are outside our knowledge and control, no warranty is given or is to be implied with respect to such information. Detailed product specification and technical manual/information is available on request.