

MULTICLEAR® SOLAR CONTROL GREY

MULTICLEAR® SOLAR CONTROL GREY is an extruded multiwall polycarbonate sheet which stops heat build up. It provides pleasant ambiance by allowing greater light transmission compared to standard tinted products whilst keeping the infra-red heat out. The spread of light is even and the surface is textured on the inner layer. The grey and silver combination of colour provides an aesthetically pleasing product once glazed whilst needing lesser frequency for cleaning due to its colour or effect.

MULTICLEAR® SOLAR CONTROL GREY has one side UV protected sheet as standard (also available with two side UV protection).

EXCELLENT FIRE PERFORMANCE complying requirements to EN 13501-1. 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.

MULTICLEAR® SOLAR CONTROL GREY has a 10 year limited warranty against discolouration, loss of impact strength and light transmission due to weathering.

MULTICLEAR® SOLAR CONTROL BENEFITS:

- Keeping the infra-red heat out
- High light transmission
- One side UV protection as standard
- Good cleanability and appearance

APPLICATION AREAS:

Suitable for applications where solar heat reduction is needed.

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

MULTICLEAR® SOLAR CONTROL GREY COMPARISON

PRODUCT	MULTICLEAR® STRONG					
	10 mm Clear	10 mm Opal	10 mm SC Grey	16 mm Clear	16 mm Opal	16 mm SC Grey
Shading coefficient SC	0,74	0,70	0,42	0,76	0,63	0,31
Total solar energy transmittance g (%)	65%	61%	37%	65%	55%	27%
Light transmittance Ty (%)	64%	44%	25%	60%	30%	15%
Direct solar transmittance Te (%)	59%	55%	24%	59%	47%	14%
Direct solar reflectance Re (%)	23%	26%	30%	19%	23%	27%

Property	Value	Unit	Standard
Physical properties			
Density	1,2	g/cm ³	ISO 1183
Refractive index (20 °C)	1,586		ISO 489
Moisture absorption 24 hours, 23 °C, 50% RH	0,15	%	
Mechanical properties			
Tensile strength at yield (at break)	63 (70)	N/mm ²	ISO 527
Elongation at yield (at break)	6 (110)	%	ISO 527
Elastic modulus	2300	N/mm ²	ISO 527
Flexural modulus	2300	N/mm ²	ISO 178
Charpy unnotched impact strength +23 °C	NB	kJ/m ²	ISO 179/2D
Charpy unnotched impact strength -40 °C	NB	kJ/m ²	ISO 179/2D
Izod notched impact strength +23 °C	65	kJ/m ²	ISO 180/1A
Izod notched impact strength -30 °C	10	kJ/m ²	ISO 180/1A
Rockwell hardness	M70		ISO 2039-2
Thermal properties			
Linear coefficient of thermal expansion (23-80 °C)	0,7	10 ⁻⁴ x K ⁻¹	
Heat deflection temperature, HDT A (1,80 N/mm ²)	132	°C	ISO 75
Heat deflection temperature, HDT B (0,45 N/mm ²)	142	°C	ISO 75
Vicat temperature VST/B 120	149	°C	ISO 306
Vicat temperature VST/B 50	148	°C	ISO 306
Specific heat capacity, Cp	1,17	kJ/kg.K	
Thermal conductivity	0,21	W/m.K	DIN 52612

Properties reported here are typical values. 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.