



POLYCARBONATE COLOURED[®] FI-01

POLYCARBONATE COLOURED[®] FI-01 is a Flame Inhibiting extruded polycarbonate sheet.

The product is produced with vast knowledge of our production team experienced in producing mono, co and tri-extrusion.

The product is virtually unbreakable with extremely high impact resistance and offers high temperature performance too.

Excellent fire performance - a flame inhibitor product, resistant to ignition.

POLYCARBONATE COLOURED[®] FI-01 is tested to ISO 25980:2014 - *Health and safety in welding and allied processes -- Transparent welding curtains, strips, and screens for arc welding processes.*

POLYCARBONATE COLOURED[®] FI-01

BENEFITS:

- Tested towards ISO 25980:2014 for robotic welding only
- Filtration of harmful ultraviolet (UV) radiation
- Rigid and highly impact resistant material
- Easy to fabricate, cold bend or thermoform into complex shapes
- Available in dark green and dark red tint

APPLICATION AREAS:

Used for large scale welding screens in robotic welding areas.

For welding protection, glazing, machine protection and in other applications where a high impact strength performance is needed.

Note: Not suitable as personal eye protection as welding filter in welding helmets, nor in workplaces where welders have to be protected against reflection of welding radiation.

DELIVERY PROGRAM:

Standard size: 2050 x 3050 mm

Thickness range: 3 - 6 mm

Colour: Dark Red 722 and Dark Green 732

Other sizes on request

POLYCARBONATE COLOURED® FI-01 TYPICAL PROPERTY VALUES

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 h, 23 °C, 50% RH	0,15	%	ISO 62
Mechanical properties			
Tensile strength at yield (at break)	60 (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 -40 °C	NB	kJ/m ²	ISO 179/1eU
Charpy notched impact strength -30 °C	11	kJ/m ²	ISO 179/1eA
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
Thermal properties			
Coefficient of linear thermal expansion (20-70 °C)	65x10 ⁻⁶	K ⁻¹	ISO 11359-2
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
Thermal conductivity	0,20	W/m.K	ISO 8302
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 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

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.