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 certified to ISO 25980:2023 *Health and safety in welding and allied processes — Transparent welding curtains, strips and screens for arc welding processes.*

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BENEFITS:

- Certified towards ISO 25980:2023-08
- Filtration of ultraviolet radiation and blue light
- 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:

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Used for welding screens, welding booths and partition walls in industrial environments.

Suitable for welding protection, glazing, machine guarding and other applications requiring high impact resistance.

Note: Not suitable as a welding filter or for protection against reflected welding arc radiation (Personal Protection Equipment).

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

Version 2026-10-21

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.

Arla Plast AB • BOX 33 • SE 591 06 Borensberg • Sweden
Phone: +46 141 20 38 00 • Fax: +46 141 414 30 • E-mail: info@arlaplast.com • www.arlaplast.com

arla
www.arlaplast.com