



# COLORADO<sup>®</sup> UV

COLORADO<sup>®</sup> UV offers a wide range of extruded transparent coloured polycarbonate sheet with double sided UV-protection. The sheet is produced with vast knowledge of our production team extrusion experience. In 1994 Arla Plast pioneered the UV-protection co-extrusion technique in Europe, which has given us unparalleled experience with UV protected sheets.

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

COLORADO<sup>®</sup> UV provides designers, specifiers and architects with possibilities to use transparent coloured polycarbonate sheets in outdoor applications where high clarity and high impact resistance is required.

Arla Plast AB offer a range of standard coloured tints but also offer good colour matching service with low minimum quantities

## STOCK COLOURS:

Light Bronze 130, Grey 133, Opal 30%.

A wide range of standard colours and colour matching service on request.

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.

## COLORADO<sup>®</sup> BENEFITS:

- Wide range of transparent colours
- More than 10 times the impact strength of high impact PMMA
- Easy to thermoform or cold bend into complex shapes
- Half the weight of glass

## APPLICATION AREAS:

For glazing, signs, displays, machine protection and in other applications where a high impact strength and good aesthetics are needed.

## DELIVERY PROGRAM:

Standard size: 2050 x 3050 mm

Thickness range: 2 – 12 mm

Colour: Standard colours and customer specific colours upon request.

Special sizes, thicknesses, and textures on request.

## COLORADO® UV 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

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.

## Statement

### Polycarbonate - Overall Chemical Resistance

Polycarbonate is a very strong and impact resistant material. However, in contact with certain chemicals, the material can lose its high impact properties, show hazing and even become brittle. It is important that before installation of part, all possible contact with chemical agents and non-compatible materials is avoided. When cleaning or treating the part, care should be taken not to use products that can damage the part. The overall chemical resistance is dependent upon the following parameters: concentration of the chemical, exposure time, temperature and tension levels.

The short list below is only a guideline and is only applicable for pure product. In case you want Arla Plast to perform compatibility testing, the product and its SDS, together with indications on above parameters are required.

Note that the chemical resistance needs not only be considered when cleaning the part, but also when using seals and any other fixing elements. PVC (with plasticizer), impregnating agents, strong industrial cleaning agents and corrosive solvents should be avoided at all times.

The limited warranty provided for polycarbonate sheet (if applicable) excludes contact with non-compatible products.

To avoid stress cracking, avoid incompatible vapours from nearby sources (production processes, environment).

Indication of chemical incompatibility is often visible as cracks, white or yellow discoloration.

Polycarbonate is compatible with:	Polycarbonate is NOT compatible with:
<ul style="list-style-type: none"><li>-alcohols (except methanol)</li><li>-mineral acids</li><li>-mild soaps and detergents</li><li>-neutral and acid salts</li><li>-oils, fats, waxes</li><li>-oxidizers and reducing agents</li><li>-saturated aliphatic hydrocarbons</li></ul>	<ul style="list-style-type: none"><li>-aldehydes</li><li>-alkaline chemicals (bases)</li><li>-amines</li><li>-ammonia</li><li>-aromatic hydrocarbons</li><li>-esters</li><li>-halogenated hydrocarbons</li><li>-ketones</li><li>-methanol</li></ul>

For Arla Plast,



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It is the responsibility of the end user to satisfy himself that the product is fit for purpose and meets the approved migrational standards for his application. We cannot guarantee that the status of this product will remain unchanged if the above Directives or Regulations are amended in the future.