Uncoated clear Polycarbonates visor material

Product Information Sheet

Products : SV Mat 0 : 1000 micron SV Mat 3 : 1500 micron SV Mat 30 : 250 micron SV Mat 36 : 6000 micron SV Mat 38 : 2000 micron SV Mat 41 : 3000 micron SV Mat 44 : 750 micron

Applications

Sheets perform well in optical tests and have extremely high optical transmission.

This information is given in good faith and is to be used only as a guide.

Safe Handling

Status under REACH

Not dangerous. The REACH regulation (1907/2006) does not require an EU safety data sheet or other communication in the supply chain concern-ing substances of very high concern (SVHC list of 13 January. 2010). As these films are "articles" under REACH, rather than a "substance" or "preparation", this document is not a "safety data sheet" as defined in the regulation.

Physical-chemical data

(general information, see technical data tables below for data on specific sheet)

The odorless film is chemically stable and resistant to attack by oils, weak acids and weak alkalis.

Physical hazards

Heavy gauges of polycarbonate can contain sharp edges. Proper protective gear, such as gloves, is recommended. Polyester film can create a slip hazard. Walking areas should be kept clear of spent visors

Health hazard data

No adverse health effects have been attributed to polycarbonate sheet.

In case of fire

The sheet will burn if exposed to flame, on its own it is self extinguishing, however if there is a secondary fuel or heat source, it may continue burning. Fire fighters should protect themselves from combustion and decomposition products that may include carbon monoxide, acetaldehyde and other toxic gases. Wear self-contained breathing apparatus and complete personal protective equipment when potential for exposure to products of combustion exists. Fire fighting extinguishing media include carbon dioxide, water spray, foam or dry chemical.

Dealing with molten sheet

If the sheet could be subjected to conditions releasing acetaldehyde, then adequate ventilation should be used to stay below the exposure limit. Skin contact with molten film causes burns (due to the heat). Appropriate clothing and heat resistant gloves can be used as protection. If contact occurs accidentally, cool quickly with cold water and have the burn treated by a physician.

Disposal and shipping information

Mechanical recycling is possible, provided a suitable collection scheme etc. were set up. Polycarbonate sheet is not classified as hazardous material for the purposes of transport by road, inland waterway, sea, air or mail. Polycarbonates /0 /30 /36 /41 /44 sheet is the standard grade of Polycarbonate sheet without UV protected.

Materials /3 & / 38 have UV protection

none have Mar resistant surface treatment

All combine high impact and temperature resistance with optical clarity and can be utilized for visor production for operator safety.

Protective cling

The cling is White both sides and is low tack static applied LDPE plain cling of our own design.

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Technical Data Tables

Typical Property Values ◆

Property	Test Method	Unit	Value
Physical			
Density	ISO 1183	g/cm³	1.2
Water absorption, 24 hours	ISO 62	mg.	10
Water absorption, saturation /23°C	ISO 62	%	0.35
Mould shrinkage	ASTM-D955	%	0.6-0.8
Poison's ratio	ASTM-D638	-	0.38
Mechanical			
Tensile stress at yield 50 mm/min	ISO 527	MPa	60
Tensile stress at break 50 mm/min	ISO 527	MPa	70
Tensile strain at yield 50 mm/min	ISO 527	%	6
Tensile strain at break 50 mm/min	ISO 527	%	120
Tensile modulus 1 mm/min	ISO 527	MPa	2350
Flexural stress at yield 2 mm/min	ISO 178	MPa	90
Flexural modulus 2 mm/min	ISO 178	MPa	2300
Hardness H358/30 95	ISO 2039/1	MPa	95
Impact			
Charpy impact, notched	ISO 179/2C	kJ/m²	35
Izod impact, unnotched 23°C	ISO 180/1U	kJ/m²	NB
Izod impact, unnotched -30°C	ISO 180/1U	kJ/m²	NB
Izod impact, notched 23°C	ISO 180/1A	kJ/m²	65
Izod impact, notched -30°C	ISO 180/1A	kJ/m²	10

Property	Test Method	Unit	Value
Thermal			
Vicat B/120	ISO 306	°C	145
HDT/Ae, 1.8 MPa edgew. 120*1*04/s=100	ISO 75	°C	127
Thermal conductivity	DIN52612	W/m.°C	0.2
Coef.of Lin.Therm.Exp.extr. 23-80°C	DIN53752	1/°C	7.00E-05
Ball pressure test 125 ±2°C	IEC335-1	-	Passes
Thermal Index. Electrical Properties	UL746B	°C	100
Thermal Index. Mech. prop.with impact	UL746B	°C	100
Thermal Index. Mech.prop.w/o impact	UL746B	°C	100
Electrical			
Volume Resistivity	IEC93	Ohm.cm	1015
Relative Permittivity 50Hz	IEC250	-	3
Dissipation Factor 1Mhz	IEC250	-	2.9
Dissipation Factor 5Hz	IEC250	-	0.0009
Dissipation Factor 1 Mhz	IEC250	-	0.01
Arc Resistance Tungsten	ASTM-D495	sec.	119
Optical			
Light transmission [1] 3 mm	ASTM-D1003	%	89

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