

PRODUCT DESCRIPTION - DATA SHEET

PolyLine™ Solid UV Sheet stands for a wide range of large-format, virtually extruded polycarbonate sheets with UV protection offers very good optical and mechanical properties. The product range comprises a variety of different surfaces, variants and structures. The high quality sheets have an excellent impact strength and provide solutions for a large number of indoor and outdoor applications.

PolyLine™ Solid Sheet is available not only in standard thicknesses from 1 to 15 mm, but also in the special thicknesses 0.8 and 20 mm.

Typical Properties	Standard	Value	PolyLine™ Solid Sheet
General Properties			
Density	DIN EN ISO 1183	g/cm ³	1,2
Ball Indentation Hardness (H359/30")	DIN EN ISO 2039-1	MPa	110
Water Absorption, 50% RH / 23°C	ISO 62	%	0.12
Water Absorption Saturation, 23°C	ISO 62	%	0.35
Mechanical Characteristics			
Flexural Modulus	DIN EN ISO 178	MPa	2300
Flexural Strength	DIN EN ISO 178	MPa	>90
Tensile Modulus	DIN EN ISO 527-2	MPa	2200
Tensile Strength at Break	ASTM D638	MPa	60
Elongation at Break	ASTM D638	%	>90
Impact Strength - Izod (notched)	DIN EN ISO 180/4A	kJ/m ²	65
Impact Strength - Izod (unnotched)	DIN EN ISO 180/4U	kJ/m ²	NB (no break)
Impact Strength - Charpy (notched)	DIN EN ISO 179-1eA	kJ/m ²	35
Impact Strength - Charpy (unnotched)	DIN EN ISO 179-1eU	kJ/m ²	NB (no break)
Optical Characteristics			
Light Transmission (Dependent of Thickness)	DIN EN ISO 13468-2	%	85-88
Refractive Index	DIN EN ISO 489DIN 53446		1,587
Solar Energy Transmittance (g-value)	DIN EN 410	%	3 mm 81.7 /10 mm 78.5
Thermal Characteristics			
VICAT-Temperature (method B 50)	DIN EN ISO 306	°C	148
Heat Deflection Temperature (HDT/A)	DIN EN ISO R 75	°C	135
Specific Heat Capacity	DIN EN ISO 11357-4	J/gK	1,17
Coefficient of Linear Thermal Expansion	DIN 53328 / DIN EN ISO 11359-1, -2	mm/m °C	0,065
Thermal Conductivity	ISO 8302	W/mK	0,2
Temperature Range		°C	-40 to +135
Forming Temperature		°C	180-210
Electrical Characteristics			
Dielectric Constant (50 Hz)	IEC 250 / DIN 53483-2		3,0
Volume Resistivity	IEC 60093 / DIN 53482	Ohm.cm	10 E14
Surface Resistivity	IEC 60093 / DIN 53482	Ohm	1 E16
Dissipation Factor (1 Mhz)	IEC 60250		0,095
Comparative Tracking Index	DIN EN 60112:2010-05	CTI - Value	CTI - 250 <1
Others			
Fire Performance (building product) (1.5 mm - 6 mm)	BP - VO 305/2011 / DIN EN 13501-1	Classification	B-s1, d0
Biocompatibility (skin contact)	DIN EN 10993-5	Classification	Not cytotoxic
Resistance to Manual Attack (steel ball) (4 - 8 - 15 mm)	DIN EN 356	Class	EN 356 - P5A
Resistance to Manual Attack (ax) (8 - 15 mm)	DIN EN 356	Class	EN 356 - P8B
Glazing for Vehicles	StVZO §22a (Germany)	Approval	ABG D469 / ABG D2272

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