

TECHNICAL DATA SHEET

POLYCARBONATE SHEETS, EXTRUDED – STANDARD AND UV PROTECTED - CLEAR DIN 11963 – DIN EN 16240

GENERAL			
Property	Method	Unit	IMPEX®
Density	DIN EN ISO 1183	g/cm ³	1.2
Ball Indentation Hardness (H359/30``)	DIN EN ISO 2039-1	MPa	110
Water vapour permeability δ	EN ISO 12572	mg/m h Pa	3.8×10^{-5}
MECHANICAL			
Property	Method	Unit	IMPEX®
Flexural Modulus	DIN EN ISO 178	MPa	2000
Flexural Strength	DIN EN ISO 178	MPa	>90
Tensile Modulus	DIN EN ISO 527-2	MPa	2200
Tensile Strength	DIN EN ISO 527-2	MPa	60
Elongation	DIN EN ISO 527-2	%	80
Impact strength – Izod (notched)	DIN EN ISO 180	kJ/m ²	>10
Impact strength – Charpy (notched)	DIN EN ISO 179 179-1/1eA	kJ/m ²	>13
Impact strength – Charpy (unnotched)	DIN EN ISO 179-1	kJ/m ²	NB (No Break)
OPTICAL			
Property	Method	Unit	IMPEX®
Light Transmission (3 mm)	DIN 5036 / DIN EN ISO 13468-1	%	86
Refractive Index	DIN EN ISO 489	n_D^{20}	1.585
Solar energy transmittance (g-value)	DIN EN 410	%	3 mm – 81.7 10 mm – 78.5

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THERMAL			
Property	Methode	Unit	IMPEX®
VICAT Temperature (method B 50)	DIN EN ISO 306	°C	145
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 ISO 11359-1, -2	mm/m °C	0.065
Thermal conductivity	DIN 52612 DIN EN ISO 22007-1	W/mK	0.2
Degradation temperature	-	°C	>280
Temperature range	-	°C	-40 to +135
Max. service temperature continuous use	-	°C	115
Max. service temperature short term use	-	°C	135
Forming temperature	-	°C	180 - 210
ELECTRICAL			
Property	Methode	Unit	IMPEX®
Dielectric constant (50 Hz)	IEC 250 DIN 53483-2	-	3.0
Volume Resistivity	IEC 60093 DIN 53482	Ω.cm	10 ¹⁵
Surface Resistivity	IEC 60093 DIN 53482	Ω	10 ¹⁵
Dielectric strength	IEC 60243-1 DIN 53481	kV/mm	>30
Dissipation Factor (50 Hz)	IEC 250 DIN 53483	-	8 x 10 ⁻⁴
Comparative tracking index	DIN EN 60112:2010-05	CTI - Value	CTI – 250 <1

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OTHERS			
Property	Methode	Unit	IMPEX®
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) (4 – 8 – 15 mm)	DIN EN 356	Class	EN 356 – P8B
Glazing for vehicles	StVZO_§22a (Germany)	Approval	ABG D469 ABG D2272

Remark: Technical data of our products are typical ones.
 The actually measured values are subject to production variations.