



## TECHNICAL PARAMETERS OF POLYCARBONATE SHEET

PROPERTY	TEST METHOD	UNITS	VALUE
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### PHYSICAL PROPERTIES

Density	ISO 1183	gm/cm <sup>3</sup>	1.2
Tensile Strength at Yield	ISO-527-2	Mpa	63
Tensile Strength at Break	ISO 527	%	>70
Elongation at Yield		%	6
Elongation at Break	ISO-527-2	%	>100
Tensile Modulus of Elasticity	ISO-527-2	Mpa	2330
Flexural Strength	ISO 178	Mpa	90
Flexural Modulus	ISO 178	Mpa	>2600
Falling Dart Drop Impact	ASTM D 1709	Joule	>160J
Izod Impact notched	ISO - 180a	kJ/m <sup>2</sup>	>65
Charpy Impact notched	ISO - 179	kJ/m <sup>2</sup>	Not Break
Rockwell Hardness		R	>110R
Drop Test Aftr 100Hrs Weatherometer	ISO 6603/1		Not Break

### THERMAL PROPERTIES

Heat Deflection Temperature	ISO - 75 - 1	°C	135
Operating Temperature		°C	(-20°C to 130°C)
Coefficient of Linear Thermal Expansion	ISO 11359-1,-2	10 <sup>-6</sup> /K	6.5
Thermal Conductivity	DIN52612	W/m x °C	0.2
Vicat Softening Temperature (50° C/h 50n)	ISO - 306	°C	150
Specific Heat Capacity	ISO-527-2	kJ/(kg·K)	1.26

### OPTICAL PROPERTIES

Haze ASTM	D1003	%	<0.5
Light Transmission (Depending On Thickness)	ASTM D1003	%	81-90%
Refractive Index	ISO 489		1.585
UV Layer Measurement	Microscop	μ	49 - 53
Yellowness index	ASTMD 1925-77	-	<1
Water Absorption, (23°C/sat)	ISO 62	%	0.35

### Electrical Properties

Dielectric Constant At 50hz	D150/din 53483		3
Dielectric Constant At 1mhz			2.9
Dielectric Strenght, Short Time 3.2 mm	D149	kv/mm	15
Dielectric Strenght, on 1 mm Thickness	DIN 53482	kv/mm	>30
Dissipation Factor 1Mhz	IES60250		0.009
Dissipation Factor 100hz	IES60250		0.0006
Surface Resistivity	IES60093	'Ω	6x10/16
Volume Resistivity	IES60093	'Ω x cm	3x10/14

### FLAMMABLE PROPERTIES

Horizontal Burnig Test (Depending On Thickness)	ASTM D635		UL 94 HB
Vertical Burning Test (Depending On Thickness)	ASTM E119		UL94 V-0,V-1,V-2 for various thickness