

White Diffuser - Physical Properties Table

As the table below presents, SUNTUF corrugated polycarbonate sheet possesses electrical, mechanical, physical, optical and thermal properties that make it ideal for a wide variety of applications.

Property	Method*	Conditions	Units - SI	Value
Physical				
Density	D-1505		g/cm ³	1.2
Water Absorption	D-570	24 hr. @ 23°C	%	0.15
Mechanical				
Tensile strength at yield	D-638	10 mm/min	MPa	65
Tensile strength at break	D-638	10 mm/min	MPa	68
Elongation at yield	D-638	10 mm/min	%	5
Elongation at break	D-638	10 mm/min	%	>70
Tensile Modulus of Elasticity	D-638	10 mm/min	MPa	2,300
Flexural Modulus	D-790	1.3 mm/min	MPa	1,890
Flexural Strength at Yield	D-790	1.3 mm/min	MPa	93
Notched Impact Strength Izod	D-256	23°C (73°F)	J/m	800
Notched Impact Strength Charpy	D-256	23°C (73°F)	J/m	800
Impact Falling Weight	ISO-6603/1b		J	50
Rockwell Hardness	D-785		R scale	118
Thermal				
Long Term Service Temperature			°C	-50 to +100
Short Term Service Temperature			°C	-50 to +120
Heat Deflection Temperature	D-648	Load: 1.82 MPa	°C	135
Vicat Softening Temperature	D-1525	Load: 1 kg	°C	150
Coefficient of Linear Thermal Expansion	D-696		10-5 cm/m °C	6.5
Thermal Conductivity	C-177		W/m K	0.21
Specific Heat Capacity	C-351		kJ/kg°K	1.3
Optical				
Haze	D-1003		%	100
Light Transmission	D-1003		%	85
Refractive Index	D-542			1.57
Yellowness Index	D-1925			<1
Electrical				
Dielectric Constant	D-150	1 KHz		2.6
	D-150	1 MHz		2.4
Dissipation Factor	D-150	1 KHz		0.005
	D-150	1 MHz		0.02
Dielectric Strength Short Time	D-149	500 V/s	kV/mm	20
Surface Resistance	D-257	Ketley	Ohm	4.1x10 ¹⁵
Volume Resistance	D-257	Ketley	Ohm-cm	1.7x10 ¹⁷

*ASTM method except where noted otherwise.

*The data in the table relates to SUNTUF 1.5 mm sheets.



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