

POLYCARBONATE WR05 SHEET

SCRATCH RESISTANCE

PRODUCT TECHNICAL DATA

Product description: polycarbonate solid sheet with good abrasion retardant surface, AR1 or AR2, two sides uv protection

Benefits: UV resistant, high abrasion resistant surface, super high impact, chemical resistant, ten years warranty against breakage, five years limited product warranty against yellowing, loss of light transmission and coating failure.

Application: Automobiles, buses, construction machinery, safety protection, building doors and windows, etc; indoors and outdoors application

Standard Size: Thickness ranges 3-15mm

Colors: Clear/Grey/on request

Property	Standard	Condition	Unit	Values
Physical				
Density	ISO 1183	23°C	g/cm ³	1.20
Water Absorption	ISO 62	50%RH 23°C	%	0.15
Poisson's ratio	ISO 527	-	-	0.38
Optical				
Light Transmission(Clear)	ASTM D1003	3 mm	%	91
	ASTM D1003	6 mm	%	88
	ASTM D1003	8 mm	%	87
	ASTM D1003	10 mm	%	86
	ASTM D1003	12.7 mm	%	85
Haze(Clear)	ASTM D1003	3-12.7 mm	%	≤1
Optical Distortion	ECE R43	6mm	-	≤0.6'
Mechanical				
Tensile Strength, Ultimate	ISO 527	50mm/min	Mpa	> 65
Tensile Strength, Yield	ISO 527	50mm/min	Mpa	> 60
Tensile Modulus	ISO 527	1 mm/min	Mpa	2300

Elongation at Break	ISO 527	50mm/min	%	> 100
Flexural Strength	ISO 178	2mm/min	Mpa	95
Flexural Modulus	ISO 178	2mm/min	Mpa	2300
Unnotched Charpy Impact	ISO 179/1eU	23°C	KJ/m ²	No Break
Puncture Energy	ISO 6603-2	6mm	J	> 330
Taber Abrasion ΔHaze	ASTM D 1044	CS-10F 500g/wheel 100 Cycles	%	2
Thermal				
Heat Deflection Temperature	ISO 75	1.80Mpa 120°C/h	°C	127
Vicat softening temperature	ISO 306	50N, 120°C/h	°C	145
Thermal conductivity	ISO 8302	-	W/m.°C	0.2
Coefficient of Thermal Expansion	ISO 11359-2	23-55°C	10 ⁻⁵ /K	7.0
Electrical				
Volume Resistivity	IEC 60093	-	Ohm-cm	> 10 ¹⁵
Dielectric strength	IEC 60243-1	in oil 3mm	KV/mm	18
Flammability				
Horizontal burn	UL 94	3-10 mm	Class	HB
	UL 94	≥10 mm	Class	V0
Automotive Burn Rate	FMVSS 571.302	3-12mm	mm/min	≤70
Limited oxygen index	ISO 4589	6 mm	%	≥24

*NOTICE

1. THESE VALUES ARE TYPICAL VALUES ONLY, NOT FOR SPECIFICATION PURPOSES.

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