

Polyshade DMW31 TR001-12-2.1

3-wall polycarbonate hollow sheet of 12 mm thickness

Product description: multi-wall polycarbonate sheet with one side co-extrusion UV layer

Benefits: UV resistant, high impact, ten (10) years limited product warranty against breakage, yellowing, and loss of light transmission.

Applications: construction, transportation, industry, etc.

Color: Clear

Property	Standard	Condition	Unit	Values
Physical				
Density	ISO 1183-1	23°C	g/cm ³	1.20
Light transmission	ASTM D1003	TR001 (Clear)	%	70
Water absorption(saturation value)	ISO 62	Water at 23°C	%	0.30
Water absorption(equilibrium value)	ISO 62	23°C, 50%RH	%	0.15
Mechanical				
*Tensile strength at break	ISO 527-1,-2	50mm/min	Mpa	65
*Tensile strength at yield	ISO 527-1,-2	50mm/min	Mpa	60
*Tensile modulus	ISO 527-1,-2	1 mm/min	Mpa	2200
*Elongation at break	ISO 527-1,-2	50mm/min	%	100
*Flexural strength	ISO 178	2mm/min	Mpa	95
*Flexural modulus	ISO 178	2mm/min	Mpa	2300
*Charpy notched impact strength	ISO 179/1eA	23°C/4mm	KJ/m ²	80
*Charpy unnotched impact strength	ISO 179/1eU	23°C/4mm	KJ/m ²	NB
*Izod notched impact strength	ISO 180/1A	23°C/3mm	KJ/m ²	70
*Izod unnotched impact strength	ISO 180/1U	23°C/3mm	KJ/m ²	NB

Thermal					
*Temperature of deflection under load	ISO 75-1,-2	1.80 Mpa	120°C/h	°C	130
*Vicat softening temperature	ISO 306	50N,	120°C/h	°C	145
*Coefficient of thermal expansion	ISO 11359-1,-2	23 to	55°C	10 ⁻⁵ /K	6.5
*Thermal conductivity	ISO 8032	23°C,	50%RH	W/ (m*K)	0.20
Electrical					
Surface resistivity	IEC 60093	-		Ω	1.00×10 ¹⁶
Volume resistivity	IEC 60093	-		Ω·m	1.00×10 ¹⁴
Flammability					
Oxygen index	ISO 4589-2	A		%	27
Fire Rating	EN13501-1	10 mm		Class	B-s1,d0

* These property values have been derived from resin data for the material used to produce this sheet product.

1) Above values are typical values only, not specifications.

2) In case of colored products, these figures might vary slightly.