

Polyshade DMW21

Twin-wall polycarbonate hollow sheet of 8 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/on request

Property	Standard	Condition	Unit	Values
Physical				
Density	ISO 1183-1	23°C	g/cm ³	1.20
Light transmission	ASTM D1003	TR001 (Clear)	%	78
	ASTM D1003	BE001 (BLue)	%	25
	ASTM D1003	BE002 (Lake Blue)	%	40
	ASTM D1003	BN001 (Brown)	%	25
	ASTM D1003	GN002 (Green)	%	50
	ASTM D1003	GY001 (Smoky Grey)	%	20
	ASTM D1003	GY003 (Blue grey)	%	20
	ASTM D1003	GY034 (Silver)	%	10
	ASTM D1003	WE002 (Opal white)	%	17
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	8 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.