

DATASHEET DS-DST-19

GENERIC MATERIAL PROPERTIES - GRP

Property (coupon values)	ASTM Test	Units	Polyester
Mechanical			
Tensile Strength (LW)	D638	psi	33,000
Tensile Strength (CW)	D638	psi	7,500
Tensile Modulus (LW)	D638	10 ⁶ psi	2.5
Tensile modulus (CW)	D638	10 ⁶ psi	0.8
Compressive Strength (LW)	D695	psi	33,000
Compressive Strength (CW)	D695	psi	16,500
Compressive Modulus (LW)	D695	10 ⁶ psi	3.0
Compressive Modulus (CW)	D695	10 ⁶ psi	1.0
Flexural Strength (LW)	D790	psi	33,000
flexural Strength (CW)	D790	psi	11,000
Flexural Modulus (LW)	D790	10 ⁶ psi	1.6
Flexural Modulus (CW)	D790	10 ⁶ psi	0.8
Modulus of Elasticity	Full Section ²	10 ⁶ psi	2.8-3.2
(Channels)	Full Section ²	10 ⁶ psi	2.8
(Square and Rectangular Tubes)	Full Section ²	10 ⁶ psi	3.2
Shear Modulus	Full Section ²	10 ⁶ psi	0.42
Interlaminar Shear (LW) ³	D2344	psi	4,500
Shear Strength By Punch (PF)	D732	psi	5,500
Notched Izod Impact (LW)	D256	ft-lbs/in	28
Notched Izod Impact (CW)	D256	ft-lbs/in	4.0
Maximum Bearing Strength (LW)	D953	psi	30,000
Maximum Bearing Strength (CW)	D953	psi	18,000
Poisson's Ratio (LW)	D3039	in/in	0.35
Poisson's Ratio (CW)	D3039	in/in	0.15
In-plane Shear (LW)	Modified D2344 ⁴	psi	7,000

FOR MORE INFO

Call: 01206 322 899

Email: sales@deck-safe.co.uk

Visit: www.decksafe.co.uk

V6-25.01.2019



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Physical			
Barcol Hardness ¹	D2583		45
Water Absorption	D570	%Max	0.6
Density	D792	lbs/in ³	0.060-0.070
Specific Gravity	D792		1.66-1.93
Coefficient of Thermal Expansion (LW) Thermal	D696	10 ⁻⁶ in/in/°F	4.4
Conductivity (PF)	C177	BTU-in/ft ² /hr/°F	4.0
Electrical			
Arc Resistance (LW)	D495	seconds	120
Dielectric Strength (LW)	D149	KV/in	40
Dielectric Strength (PF)	D149	volts/mil	200
Dielectric Constant (PF)	D150	@60Hz	5.2

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