

Generic Material Properties

Mechanical Data

| Property (coupon values) | ASTM Test | Units | Polyester |
|--------------------------------------|-----------------------------|---------------------|-----------|
| Tensile Strength (LW) | D638 | psi | 33000 |
| Tensile Strength (CW) | D638 | psi | 7500 |
| Tensile Modulus (LW) | D638 | 10 ⁶ psi | 2.5 |
| Tensile modulus (CW) | D638 | 10 ⁶ psi | 0.8 |
| Compressive Strength (LW) | D695 | psi | 33000 |
| Compressive Strength (CW) | D695 | psi | 16500 |
| Compressive Modulus (LW) | D695 | 10 ⁶ psi | 3.0 |
| Compressive Modulus (CW) | D695 | 10 ⁶ psi | 1.0 |
| Flexural Strength (LW) | D790 | psi | 33000 |
| flexural Strength (CW) | D790 | psi | 11000 |
| 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 INFORMATION

Call: 01206 322 899

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Visit: www.decksafe.co.uk



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Physical Data

| Property (coupon values) | ASTM Test | Units | Polyester |
|---------------------------------------|-----------|--------------------------------|-------------|
| 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) | D696 | 10 ⁻⁶ in/in/° F | 4.4 |
| Thermal Conductivity (PF) | C177 | BTU-in/ft ² /hr/° F | 4.0 |

Electrical Data

| Property (coupon values) | ASTM Test | Units | Polyester |
|--------------------------|-----------|-----------|-----------|
| 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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