

MATERIAL PROPERTIES

Pultex[®] Fiber Reinforced Polymer Flat Sheets

1500 Series - Thermoset Polyester – Olive Green

1525 Series - Thermoset Polyester Class 1 FR – Slate Gray (Dark Gray)

1625 Series - Thermoset Vinyl Ester Class 1 FR – Beige

The following data was derived from ASTM coupon and full section testing. The results are average values based on random sampling and testing of production lots. Composite materials are not homogeneous; and therefore, the location of the coupon extraction can cause variances in the coupon test results. Creative Pultrusions publishes an average value of random samples from production lots.

| Property (coupon values) | ASTM Test | Units | 1500/1525 Series | 1625 Series |
|---------------------------------------|-----------|---------------------------|------------------|-------------|
| Mechanical | | | | |
| Flexural Strength, Flatwise (LW) | D790 | psi | 35,000 | 35,000 |
| Flexural Strength, Flatwise (CW) | D790 | psi | 15,000 | 15,000 |
| Flexural Modulus, Flatwise (LW) | D790 | 10 ⁶ psi | 2.0 | 2.0 |
| Flexural Modulus, Flatwise (CW) | D790 | 10 ⁶ psi | 1.1 | 1.1 |
| Tensile Strength (LW) | D638 | psi | 20,000 | 20,000 |
| Tensile Strength (CW) | D638 | psi | 10,000 | 10,000 |
| Tensile Modulus (LW) | D638 | 10 ⁶ psi | 1.8 | 1.8 |
| Tensile Modulus (CW) | D638 | 10 ⁶ psi | 1.0 | 1.0 |
| Compressive Strength, Edgewise (LW) | D695 | psi | 24,000 | 24,000 |
| Compressive Strength, Edgewise (CW) | D695 | psi | 16,000 | 16,000 |
| Compressive Modulus, Edgewise (LW) | D695 | 10 ⁶ psi | 1.8 | 1.8 |
| Compressive Modulus, Edgewise (CW) | D695 | 10 ⁶ psi | 1.0 | 1.0 |
| Notched Izod Impact (LW) | D256 | ft-lbs/in | 20 | 20 |
| Notched Izod Impact (CW) | D256 | ft-lbs/in | 5 | 5 |
| Bearing Strength (LW) | D953 | psi | 32,000 | 32,000 |
| Bearing Strength (CW) | D953 | psi | 32,000 | 32,000 |
| Poisson's Ratio (LW) | D3039 | in/in | 0.32 | 0.32 |
| Poisson's Ratio (CW) | D3039 | in/in | 0.25 | 0.25 |
| Physical | | | | |
| Barcol Hardness ¹ | D2583 | | 40 | 40 |
| Water Absorption | D570 | % Max | 0.6 | 0.6 |
| Density | D792 | lbs/in ³ | 0.060-0.070 | 0.060-0.070 |
| Specific Gravity | D792 | | 1.66-1.93 | 1.66-1.93 |
| Coefficient of Thermal Expansion (LW) | D696 | 10 ⁻⁶ in/in/°F | 8.0 | 8.0 |
| Electrical | | | | |
| Arc Resistance (LW) | D495 | seconds | 120 | 120 |
| Dielectric Strength (LW) | D149 | KV/in | 40 | 40 |
| Dielectric Strength (PF) | D149 | volts/mil | 200 | 200 |
| Dielectric Constant (PF) | D150 | @60Hz | 5.2 | 5.2 |

¹ Pultex[®] uses a synthetic surface veil that reduces the Barcol Hardness, but does not reflect lack of cure.

Additional Properties located on back



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MATERIAL PROPERTIES

Pultex[®] Fiber Reinforced Polymer Flat Sheets (cont'd)

| Property | ASTM Test | Value | Value |
|-----------------------------|-----------|---------------------|---------------------|
| Flammability Classification | UL94 | 1525 (VO) | 1625 (VO) |
| Tunnel Test | ASTM E-84 | 25 Max | 25 Max |
| Flammability Extinguishing | ASTM D635 | Self extinguishing | Self extinguishing |
| NBS Smoke Chamber | ASTM E662 | 650 | 650 |

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