



## E-LTM 4010

Fiber Type: E-Glass  
 Architecture: 0/90 Biaxial  
 Dry Thickness: 0.060 in. / 1.52 mm  
 Total Weight: 48.68 oz/sq.yd / 1651 g/sq.m

| Roll Specifications            |                                |                              | Fiber Architecture Data                  |  |
|--------------------------------|--------------------------------|------------------------------|--|--|
| Roll Width:<br>50 in / 1270 mm | Roll Weight:<br>206 lb / 94 kg | Roll Length:<br>48 yd / 44 m | 0 ° : 17.92 oz/sq.yd / 608 g/sq.m        |  |
|                                |                                |                              | 45 ° : n/a                               |  |
|                                |                                |                              | 90 ° : 21.76 oz/sq.yd / 738 g/sq.m       |  |
|                                |                                |                              | -45 ° : n/a                              |  |
|                                |                                |                              | Chopped Mat : 9.00 oz/sq.yd / 305 g/sq.m |  |

1: Packaging: box or bag.

2: Weights do not include polyester stitching.

### Laminated Properties

0 °

0 °

#### Laminate Weight

|       | E-LTM 4010<br>Resin Infused |               | E-LTM 4010<br>Open Mold |               |
|-------|-----------------------------|---------------|-------------------------|---------------|
|       | Fiber                       | 0.34 lb/sq.ft | 1.65 kg/sq.m            | 0.34 lb/sq.ft |
| Resin | 0.16 lb/sq.ft               | 0.78 kg/sq.m  | 0.35 lb/sq.ft           | 1.69 kg/sq.m  |
| Total | 0.50 lb/sq.ft               | 2.43 kg/sq.m  | 0.68 lb/sq.ft           | 3.34 kg/sq.m  |

#### Physical Properties

|               | E-LTM 4010<br>Resin Infused |               | E-LTM 4010<br>Open Mold |               |
|---------------|-----------------------------|---------------|-------------------------|---------------|
|               | Density                     | 1.08 oz/cu.in | 1.87 g/cc               | 0.94 oz/cu.in |
| Fiber Content | 68% by Wt.                  | 50% by Vol.   | 49% by Wt.              | 32% by Vol.   |
| Thickness     | 0.051 in                    | 1.3 mm        | 0.081 in                | 2.1 mm        |

**Laminate Moduli**

|          | E-LTM 4010<br>Resin Infused |           | E-LTM 4010<br>Open Mold |           |
|----------|-----------------------------|-----------|-------------------------|-----------|
|          | Ex                          | 3.28 MSI  | 22.64 GPa               | 2.22 MSI  |
| Ey       | 3.56 MSI                    | 24.52 GPa | 2.40 MSI                | 16.56 GPa |
| Gxy      | 0.66 MSI                    | 4.52 GPa  | 0.45 MSI                | 3.13 GPa  |
| Ex,flex. | 3.12 MSI                    | 21.51 GPa | 2.11 MSI                | 14.52 GPa |
| Ey,flex. | 3.38 MSI                    | 23.29 GPa | 2.28 MSI                | 15.73 GPa |

**Ultimate Stress**

|                | E-LTM 4010<br>Resin Infused |           | E-LTM 4010<br>Open Mold |           |
|----------------|-----------------------------|-----------|-------------------------|-----------|
|                | Long. Ten.                  | 53.9 KSI  | 371.3 MPa               | 36.3 KSI  |
| Long. Comp.    | 62.2 KSI                    | 428.7 MPa | 42.0 KSI                | 289.3 MPa |
| Trans. Ten.    | 58.3 KSI                    | 402.1 MPa | 39.4 KSI                | 271.5 MPa |
| Trans. Comp.   | 67.3 KSI                    | 464.2 MPa | 45.5 KSI                | 313.4 MPa |
| In-Plane Shear | 14.9 KSI                    | 103.0 MPa | 10.3 KSI                | 71.3 MPa  |
| Long. Flex.    | 74.2 KSI                    | 511.6 MPa | 50.1 KSI                | 345.3 MPa |
| Trans. Flex.   | 80.4 KSI                    | 554.0 MPa | 54.3 KSI                | 374.1 MPa |

**In-Plane Stiffness, "EA"**

|        | E-LTM 4010<br>Resin Infused |               | E-LTM 4010<br>Open Mold |               |
|--------|-----------------------------|---------------|-------------------------|---------------|
|        | (EA)x                       | 168,079 lb/in | 29,434 N/mm             | 179,857 lb/in |
| (EA)y  | 182,003 lb/in               | 31,872 N/mm   | 194,846 lb/in           | 34,121 N/mm   |
| (GA)xy | 33,544 lb/in                | 5,874 N/mm    | 36,786 lb/in            | 6,442 N/mm    |

**Ultimate In-Plane Load**

|                | E-LTM 4010<br>Resin Infused |             | E-LTM 4010<br>Open Mold |             |
|----------------|-----------------------------|-------------|-------------------------|-------------|
|                | Long. Ten.                  | 2,756 lb/in | 483 N/mm                | 2,950 lb/in |
| Long. Comp.    | 3,182 lb/in                 | 557 N/mm    | 3,405 lb/in             | 596 N/mm    |
| Trans. Ten.    | 2,985 lb/in                 | 523 N/mm    | 3,195 lb/in             | 560 N/mm    |
| Trans. Comp.   | 3,446 lb/in                 | 603 N/mm    | 3,689 lb/in             | 646 N/mm    |
| In-Plane Shear | 765 lb/in                   | 134 N/mm    | 839 lb/in               | 147 N/mm    |

**Notes:**

- 1: Resin infused laminate made with a poly / vinyl ester resin blend.
- 2: Open mold laminate made with poly / vinyl ester resin blend.
- 3: All standard reinforcements should be infused with a flow aid or Vectorfusion® reinforcements.
- 4: All properties are given assuming a symmetric or quasisymmetric laminate schedule.



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