



## E-WMV 1815

Fiber Type: E-Glass  
 Architecture: Woven  
 Dry Thickness: 0.054 in. / 1.37 mm  
 Total Weight: 31.50 oz/sq.yd / 1068 g/sq.m

| Roll Specifications            |                                |                              | Fiber Architecture Data                   |  |
|--------------------------------|--------------------------------|------------------------------|---|--|
| Roll Width:<br>50 in / 1270 mm | Roll Weight:<br>180 lb / 82 kg | Roll Length:<br>63 yd / 58 m | 0 ° : 9.00 oz/sq.yd / 305 g/sq.m          |  |
|                                |                                |                              | 45 ° : n/a                                |  |
|                                |                                |                              | 90 ° : 9.00 oz/sq.yd / 305 g/sq.m         |  |
|                                |                                |                              | -45 ° : n/a                               |  |
|                                |                                |                              | Chopped Mat : 13.50 oz/sq.yd / 458 g/sq.m |  |

1: Packaging: box or bag.

2: Weights do not include polyester stitching.

### Laminated Properties

0 °

0 °

| Laminate Weight |                             |              |                         |              |
|-----------------|-----------------------------|--------------|-------------------------|--------------|
|                 | E-WMV 1815<br>Resin Infused |              | E-WMV 1815<br>Open Mold |              |
| Fiber           | 0.22 lb/sq.ft               | 1.07 kg/sq.m | 0.22 lb/sq.ft           | 1.07 kg/sq.m |
| Resin           | 0.12 lb/sq.ft               | 0.61 kg/sq.m | 0.37 lb/sq.ft           | 1.81 kg/sq.m |
| Total           | 0.34 lb/sq.ft               | 1.67 kg/sq.m | 0.59 lb/sq.ft           | 2.88 kg/sq.m |

| Physical Properties |                             |             |                         |             |
|---------------------|-----------------------------|-------------|-------------------------|-------------|
|                     | E-WMV 1815<br>Resin Infused |             | E-WMV 1815<br>Open Mold |             |
| Density             | 1.05 oz/cu.in               | 1.81 g/cc   | 0.86 oz/cu.in           | 1.49 g/cc   |
| Fiber Content       | 64% by Wt.                  | 45% by Vol. | 37% by Wt.              | 22% by Vol. |
| Thickness           | 0.036 in                    | 0.9 mm      | 0.076 in                | 1.9 mm      |

**Laminate Moduli**

|          | E-WMV 1815<br>Resin Infused |           | E-WMV 1815<br>Open Mold |          |
|----------|-----------------------------|-----------|-------------------------|----------|
|          | Ex                          | 2.40 MSI  | 16.57 GPa               | 1.42 MSI |
| Ey       | 2.40 MSI                    | 16.57 GPa | 1.42 MSI                | 9.81 GPa |
| Gxy      | 0.61 MSI                    | 4.23 GPa  | 0.39 MSI                | 2.69 GPa |
| Ex,flex. | 2.28 MSI                    | 15.75 GPa | 1.35 MSI                | 9.32 GPa |
| Ey,flex. | 2.28 MSI                    | 15.75 GPa | 1.35 MSI                | 9.32 GPa |

**Ultimate Stress**

|                | E-WMV 1815<br>Resin Infused |           | E-WMV 1815<br>Open Mold |           |
|----------------|-----------------------------|-----------|-------------------------|-----------|
|                | Long. Ten.                  | 37.6 KSI  | 259.0 MPa               | 22.2 KSI  |
| Long. Comp.    | 33.4 KSI                    | 230.0 MPa | 19.8 KSI                | 136.2 MPa |
| Trans. Ten.    | 37.6 KSI                    | 259.0 MPa | 22.2 KSI                | 153.4 MPa |
| Trans. Comp.   | 33.4 KSI                    | 230.0 MPa | 19.8 KSI                | 136.2 MPa |
| In-Plane Shear | 12.3 KSI                    | 84.7 MPa  | 7.8 KSI                 | 53.8 MPa  |
| Long. Flex.    | 50.2 KSI                    | 346.4 MPa | 29.8 KSI                | 205.1 MPa |
| Trans. Flex.   | 50.2 KSI                    | 346.4 MPa | 29.8 KSI                | 205.1 MPa |

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

|        | E-WMV 1815<br>Resin Infused |              | E-WMV 1815<br>Open Mold |               |
|--------|-----------------------------|--------------|-------------------------|---------------|
|        | (EA)x                       | 87,603 lb/in | 15,341 N/mm             | 108,307 lb/in |
| (EA)y  | 87,603 lb/in                | 15,341 N/mm  | 108,306 lb/in           | 18,966 N/mm   |
| (GA)xy | 22,373 lb/in                | 3,918 N/mm   | 29,672 lb/in            | 5,196 N/mm    |

**Ultimate In-Plane Load**

|                | E-WMV 1815<br>Resin Infused |             | E-WMV 1815<br>Open Mold |             |
|----------------|-----------------------------|-------------|-------------------------|-------------|
|                | Long. Ten.                  | 1,369 lb/in | 240 N/mm                | 1,692 lb/in |
| Long. Comp.    | 1,215 lb/in                 | 213 N/mm    | 1,503 lb/in             | 263 N/mm    |
| Trans. Ten.    | 1,369 lb/in                 | 240 N/mm    | 1,692 lb/in             | 296 N/mm    |
| Trans. Comp.   | 1,215 lb/in                 | 213 N/mm    | 1,503 lb/in             | 263 N/mm    |
| In-Plane Shear | 447 lb/in                   | 78 N/mm     | 593 lb/in               | 104 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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