



# KE-BX 1700

Fiber Type: Glass/Aramid  
 Architecture: 45/-45 Double Bias  
 Dry Thickness: 0.024 in. / 0.61 mm  
 Total Weight: 17.12 oz/sq.yd / 581 g/sq.m

**VECTORULTRA™**  
 ADVANCED COMPOSITE REINFORCEMENTS

| Roll Specifications            |                                |                                | Fiber Architecture Data            |  |
|--------------------------------|--------------------------------|--------------------------------|------------------------------------|--|
| Roll Width:<br>50 in / 1270 mm | Roll Weight:<br>185 lb / 84 kg | Roll Length:<br>124 yd / 113 m | 0 ° : n/a                          |  |
|                                |                                |                                | 45 ° : 8.56 oz/sq.yd / 290 g/sq.m  |  |
|                                |                                |                                | 90 ° : n/a                         |  |
|                                |                                |                                | -45 ° : 8.56 oz/sq.yd / 290 g/sq.m |  |
|                                |                                |                                | Chopped Mat : n/a                  |  |

1: Packaging: box or bag.  
 2: Weights do not include polyester stitching.

## Laminated Properties

45 °

45 °

| Laminate Weight |                             |              |                         |              |
|-----------------|-----------------------------|--------------|-------------------------|--------------|
|                 | KE-BX 1700<br>Resin Infused |              | KE-BX 1700<br>Open Mold |              |
| Fiber           | 0.12 lb/sq.ft               | 0.58 kg/sq.m | 0.12 lb/sq.ft           | 0.58 kg/sq.m |
| Resin           | 0.05 lb/sq.ft               | 0.25 kg/sq.m | 0.13 lb/sq.ft           | 0.63 kg/sq.m |
| Total           | 0.17 lb/sq.ft               | 0.83 kg/sq.m | 0.25 lb/sq.ft           | 1.21 kg/sq.m |

| Physical Properties |                             |             |                         |             |
|---------------------|-----------------------------|-------------|-------------------------|-------------|
|                     | KE-BX 1700<br>Resin Infused |             | KE-BX 1700<br>Open Mold |             |
| Density             | 1.01 oz/cu.in               | 1.75 g/cc   | 0.88 oz/cu.in           | 1.53 g/cc   |
| Fiber Content       | 70% by Wt.                  | 56% by Vol. | 48% by Wt.              | 34% by Vol. |
| Thickness           | 0.019 in                    | 0.5 mm      | 0.031 in                | 0.8 mm      |

**Laminate Moduli**

|          | KE-BX 1700<br>Resin Infused |           | KE-BX 1700<br>Open Mold |           |
|----------|-----------------------------|-----------|-------------------------|-----------|
|          | Ex                          | 4.92 MSI  | 33.92 GPa               | 3.16 MSI  |
| Ey       | 4.92 MSI                    | 33.92 GPa | 3.16 MSI                | 21.77 GPa |
| Gxy      | 0.57 MSI                    | 3.93 GPa  | 0.40 MSI                | 2.76 GPa  |
| Ex,flex. | 4.67 MSI                    | 32.23 GPa | 3.00 MSI                | 20.68 GPa |
| Ey,flex. | 4.67 MSI                    | 32.23 GPa | 3.00 MSI                | 20.68 GPa |

**Ultimate Stress**

|                | KE-BX 1700<br>Resin Infused |           | KE-BX 1700<br>Open Mold |           |
|----------------|-----------------------------|-----------|-------------------------|-----------|
|                | Long. Ten.                  | 77.3 KSI  | 533.1 MPa               | 49.6 KSI  |
| Long. Comp.    | 58.0 KSI                    | 399.8 MPa | 37.2 KSI                | 256.5 MPa |
| Trans. Ten.    | 77.3 KSI                    | 533.1 MPa | 49.6 KSI                | 342.0 MPa |
| Trans. Comp.   | 58.0 KSI                    | 399.8 MPa | 37.2 KSI                | 256.5 MPa |
| In-Plane Shear | 11.4 KSI                    | 78.5 MPa  | 8.0 KSI                 | 55.3 MPa  |
| Long. Flex.    | 90.1 KSI                    | 621.5 MPa | 57.8 KSI                | 398.8 MPa |
| Trans. Flex.   | 90.1 KSI                    | 621.5 MPa | 57.8 KSI                | 398.8 MPa |

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

|        | KE-BX 1700<br>Resin Infused |              | KE-BX 1700<br>Open Mold |              |
|--------|-----------------------------|--------------|-------------------------|--------------|
|        | (EA)x                       | 92,002 lb/in | 16,111 N/mm             | 98,407 lb/in |
| (EA)y  | 92,002 lb/in                | 16,111 N/mm  | 98,407 lb/in            | 17,233 N/mm  |
| (GA)xy | 10,648 lb/in                | 1,865 N/mm   | 12,497 lb/in            | 2,188 N/mm   |

**Ultimate In-Plane Load**

|                | KE-BX 1700<br>Resin Infused |             | KE-BX 1700<br>Open Mold |             |
|----------------|-----------------------------|-------------|-------------------------|-------------|
|                | Long. Ten.                  | 1,446 lb/in | 253 N/mm                | 1,546 lb/in |
| Long. Comp.    | 1,084 lb/in                 | 190 N/mm    | 1,160 lb/in             | 203 N/mm    |
| Trans. Ten.    | 1,446 lb/in                 | 253 N/mm    | 1,546 lb/in             | 271 N/mm    |
| Trans. Comp.   | 1,084 lb/in                 | 190 N/mm    | 1,160 lb/in             | 203 N/mm    |
| In-Plane Shear | 213 lb/in                   | 37 N/mm     | 250 lb/in               | 44 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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REV: 9/22/2015

**Disclaimer:**

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