



## 81B VPLY

Fiber Type: E-Glass  
 Architecture: 45/-45 Double Bias  
 Dry Thickness: 0.029 in. / 0.74 mm  
 Total Weight: 23.90 oz/sq.yd / 810 g/sq.m

**VECTOR** *WIND*

| Roll Specifications |                 |               | Fiber Architecture Data |                             |
|---------------------|-----------------|---------------|-------------------------|-----------------------------|
| Roll Width:         | Roll Weight:    | Roll Length:  | 0 ° :                   | n/a                         |
| 50 in / 1270 mm     | 221 lb / 100 kg | 105 yd / 96 m | 45 ° :                  | 11.95 oz/sq.yd / 405 g/sq.m |
|                     |                 |               | 90 ° :                  | n/a                         |
|                     |                 |               | -45 ° :                 | 11.95 oz/sq.yd / 405 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 |                           |                       |
|-----------------|---------------------------|-----------------------|
| (lb/sq.ft)      | 81B VPLY<br>Resin Infused | 81B VPLY<br>Open Mold |
| Fiber           | 0.17                      | 0.17                  |
| Resin           | 0.07                      | 0.14                  |
| Total           | 0.24                      | 0.30                  |

| Physical Properties      |                           |                       |
|--------------------------|---------------------------|-----------------------|
|                          | 81B VPLY<br>Resin Infused | 81B VPLY<br>Open Mold |
| Density (g/cc)           | 1.90                      | 1.69                  |
| Fiber Content (% by Wt.) | 70%                       | 55%                   |
| Thickness (in)           | 0.024                     | 0.034                 |

| Laminate Modulii |                           |                       |
|------------------|---------------------------|-----------------------|
| (MSI)            | 81B VPLY<br>Resin Infused | 81B VPLY<br>Open Mold |
| Ex               | 3.91                      | 2.82                  |
| Ey               | 3.91                      | 2.82                  |
| Gxy              | 0.93                      | 0.64                  |
| Ex,flex.         | 3.71                      | 2.68                  |
| Ey,flex.         | 3.71                      | 2.68                  |

| Ultimate Stress |                           |                       |
|-----------------|---------------------------|-----------------------|
| (KSI)           | 81B VPLY<br>Resin Infused | 81B VPLY<br>Open Mold |
| Long. Ten.      | 74                        | 53                    |
| Long. Comp.     | 74                        | 53                    |
| Trans. Ten.     | 74                        | 53                    |
| Trans. Comp.    | 74                        | 53                    |
| In-Plane Shear  | 19                        | 13                    |
| Long. Flex.     | 88                        | 64                    |
| Trans. Flex.    | 88                        | 64                    |

| In-Plane Stiffness, "EA" |                           |                       |
|--------------------------|---------------------------|-----------------------|
| 10 <sup>3</sup> lb/in    | 81B VPLY<br>Resin Infused | 81B VPLY<br>Open Mold |
| (EA)x                    | 94                        | 97                    |
| (EA)y                    | 94                        | 97                    |
| (GA)xy                   | 22                        | 22                    |

| Ultimate In-Plane Load |                           |                       |
|------------------------|---------------------------|-----------------------|
| lb/in                  | 81B VPLY<br>Resin Infused | 81B VPLY<br>Open Mold |
| Long. Ten.             | 1,774                     | 1,834                 |
| Long. Comp.            | 1,774                     | 1,834                 |
| Trans. Ten.            | 1,774                     | 1,834                 |
| Trans. Comp.           | 1,774                     | 1,834                 |
| In-Plane Shear         | 448                       | 437                   |

**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.



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Disclaimer:

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VP makes no warranty whatsoever as to the accuracy of any such predicted physical performance, and customer acknowledges that customer is solely responsible for determining the performance and fitness for a particular use of any product produced by customer utilizing a fabric or material produced or manufactured by VP. Specifications of reinforcements may change without notice.