



C-L 1800

Fiber Type: Carbon
 Architecture: 0 Warp Unidirectional
 Dry Thickness: 0.026 in. / 0.66 mm
 Total Weight: 17.40 oz/sq.yd / 590 g/sq.m

VECTORULTRA™
 ADVANCED COMPOSITE REINFORCEMENTS

Roll Specifications			Fiber Architecture Data	
Roll Width: 24 in / 610 mm	Roll Weight: 73 lb / 33 kg	Roll Length: 100 yd / 91 m	0 ° : 17.40 oz/sq.yd / 590 g/sq.m	
			45 ° : n/a	
			90 ° : n/a	
			-45 ° : n/a	
			Chopped Mat : n/a	

1: Packaging: box or bag.

2: Weights do not include polyester stitching.

Laminated Properties

0 °

0 °

Laminate Weight				
	C-L 1800 Resin Infused		C-L 1800 Open Mold	
Fiber	0.12 lb/sq.ft	0.59 kg/sq.m	0.12 lb/sq.ft	0.59 kg/sq.m
Resin	0.07 lb/sq.ft	0.33 kg/sq.m	0.15 lb/sq.ft	0.72 kg/sq.m
Total	0.19 lb/sq.ft	0.92 kg/sq.m	0.27 lb/sq.ft	1.31 kg/sq.m

Physical Properties				
	C-L 1800 Resin Infused		C-L 1800 Open Mold	
Density	0.88 oz/cu.in	1.53 g/cc	0.82 oz/cu.in	1.41 g/cc
Fiber Content	64% by Wt.	54% by Vol.	45% by Wt.	35% by Vol.
Thickness	0.024 in	0.6 mm	0.037 in	0.9 mm

Laminate Moduli

	C-L 1800 Resin Infused		C-L 1800 Open Mold	
	Ex	16.56 MSI	114.16 GPa	10.99 MSI
Ey	1.43 MSI	9.89 GPa	1.08 MSI	7.44 GPa
Gxy	0.59 MSI	4.09 GPa	0.42 MSI	2.91 GPa
Ex,flex.	15.73 MSI	108.45 GPa	10.44 MSI	71.99 GPa
Ey,flex.	1.36 MSI	9.40 GPa	1.03 MSI	7.07 GPa

Ultimate Stress

	C-L 1800 Resin Infused		C-L 1800 Open Mold	
	Long. Ten.	198.7 KSI	1,369.9 MPa	131.9 KSI
Long. Comp.	126.9 KSI	875.2 MPa	84.3 KSI	581.0 MPa
Trans. Ten.	4.2 KSI	29.2 MPa	4.0 KSI	27.9 MPa
Trans. Comp.	16.1 KSI	110.8 MPa	15.4 KSI	106.0 MPa
In-Plane Shear	7.9 KSI	54.3 MPa	7.5 KSI	51.6 MPa
Long. Flex.	120.6 KSI	831.5 MPa	80.1 KSI	552.0 MPa
Trans. Flex.	4.0 KSI	27.7 MPa	3.8 KSI	26.5 MPa

In-Plane Stiffness, "EA"

	C-L 1800 Resin Infused		C-L 1800 Open Mold	
	(EA)x	393,982 lb/in	68,993 N/mm	401,916 lb/in
(EA)y	34,130 lb/in	5,977 N/mm	39,482 lb/in	6,914 N/mm
(GA)xy	14,125 lb/in	2,474 N/mm	15,426 lb/in	2,701 N/mm

Ultimate In-Plane Load

	C-L 1800 Resin Infused		C-L 1800 Open Mold	
	Long. Ten.	4,728 lb/in	828 N/mm	4,823 lb/in
Long. Comp.	3,021 lb/in	529 N/mm	3,081 lb/in	540 N/mm
Trans. Ten.	101 lb/in	18 N/mm	148 lb/in	26 N/mm
Trans. Comp.	383 lb/in	67 N/mm	562 lb/in	98 N/mm
In-Plane Shear	187 lb/in	33 N/mm	274 lb/in	48 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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Disclaimer:

As a service to customers, Vectorply Corporation ("VP") may provide computer-generated predictions of the physical performance of a product using a reinforcement fabric produced by VP in combination with other materials or systems.

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.