



C-LA 1312

Fiber Type: Carbon
 Architecture: 0 Warp Unidirectional
 Dry Thickness: 0.019 in. / 0.48 mm
 Total Weight: 14.64 oz/sq.yd / 496 g/sq.m

VECTORULTRA™
 ADVANCED COMPOSITE REINFORCEMENTS

Roll Specifications			Fiber Architecture Data	
Roll Width:	Roll Weight:	Roll Length:	0 ° :	13.44 oz/sq.yd / 456 g/sq.m
50 in / 1270 mm	145 lb / 66 kg	110 yd / 101 m	45 ° :	n/a
			90 ° :	n/a
			-45 ° :	n/a
			Chopped Mat :	1.20 oz/sq.yd / 41 g/sq.m

1: Packaging: box or bag.

2: Weights do not include polyester stitching.

Laminated Properties

0 °

0 °

Laminate Weight				
	C-LA 1312 Resin Infused		C-LA 1312 Open Mold	
Fiber	0.10 lb/sq.ft	0.50 kg/sq.m	0.10 lb/sq.ft	0.50 kg/sq.m
Resin	0.06 lb/sq.ft	0.28 kg/sq.m	0.13 lb/sq.ft	0.64 kg/sq.m
Total	0.16 lb/sq.ft	0.78 kg/sq.m	0.23 lb/sq.ft	1.13 kg/sq.m

Physical Properties				
	C-LA 1312 Resin Infused		C-LA 1312 Open Mold	
Density	0.89 oz/cu.in	1.54 g/cc	0.82 oz/cu.in	1.42 g/cc
Fiber Content	64% by Wt.	54% by Vol.	44% by Wt.	34% by Vol.
Thickness	0.020 in	0.5 mm	0.031 in	0.8 mm

Laminate Moduli

	C-LA 1312		C-LA 1312	
	Resin Infused		Open Mold	
Ex	14.05 MSI	96.88 GPa	9.06 MSI	62.48 GPa
Ey	0.77 MSI	5.34 GPa	0.71 MSI	4.90 GPa
Gxy	0.62 MSI	4.30 GPa	0.44 MSI	3.00 GPa
Ex,flex.	13.35 MSI	92.04 GPa	8.61 MSI	59.36 GPa
Ey,flex.	0.74 MSI	5.07 GPa	0.68 MSI	4.66 GPa

Ultimate Stress

	C-LA 1312		C-LA 1312	
	Resin Infused		Open Mold	
Long. Ten.	142.6 KSI	983.2 MPa	92.0 KSI	634.1 MPa
Long. Comp.	119.7 KSI	825.3 MPa	77.2 KSI	532.2 MPa
Trans. Ten.	14.3 KSI	98.5 MPa	13.1 KSI	90.5 MPa
Trans. Comp.	18.8 KSI	129.5 MPa	17.3 KSI	119.0 MPa
In-Plane Shear	15.1 KSI	104.4 MPa	10.6 KSI	72.8 MPa
Long. Flex.	113.7 KSI	784.0 MPa	73.3 KSI	505.6 MPa
Trans. Flex.	27.1 KSI	187.1 MPa	24.9 KSI	171.9 MPa

In-Plane Stiffness, "EA"

	C-LA 1312		C-LA 1312	
	Resin Infused		Open Mold	
(EA)x	278,145 lb/in	48,708 N/mm	285,153 lb/in	49,936 N/mm
(EA)y	15,322 lb/in	2,683 N/mm	22,379 lb/in	3,919 N/mm
(GA)xy	12,347 lb/in	2,162 N/mm	13,692 lb/in	2,398 N/mm

Ultimate In-Plane Load

	C-LA 1312		C-LA 1312	
	Resin Infused		Open Mold	
Long. Ten.	2,823 lb/in	494 N/mm	2,894 lb/in	507 N/mm
Long. Comp.	2,369 lb/in	415 N/mm	2,429 lb/in	425 N/mm
Trans. Ten.	283 lb/in	49 N/mm	413 lb/in	72 N/mm
Trans. Comp.	372 lb/in	65 N/mm	543 lb/in	95 N/mm
In-Plane Shear	300 lb/in	52 N/mm	332 lb/in	58 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.