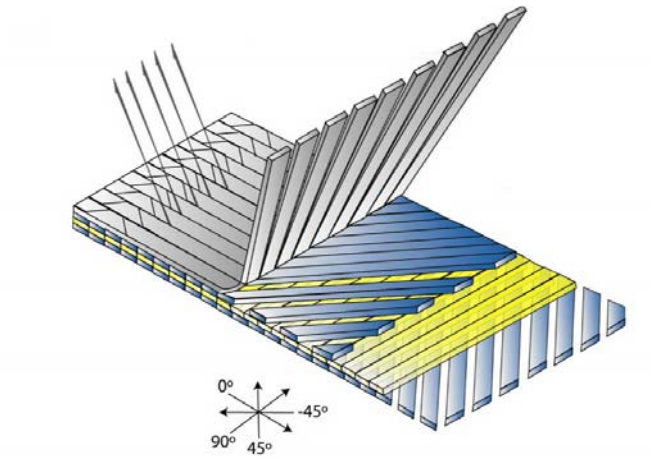
VECTORPLY®
Performance Composite Reinforcements



E-QX 3500

Fiber Type: E-Glass
Architecture: 0/45/90/-45 Quadraxial
Dry Thickness: 0.047 in. / 1.19 mm
Total Weight: 35.96 oz/sq.yd / 1219 g/sq.m

Roll Specifications			Fiber Architecture Data	
Roll Width:	Roll Weight:	Roll Length:	0 ° :	12.80 oz/sq.yd / 434 g/sq.m
50 in / 1270 mm	191 lb / 87 kg	60 yd / 55 m	45 ° :	5.82 oz/sq.yd / 197 g/sq.m
			90 ° :	11.52 oz/sq.yd / 391 g/sq.m
			-45 ° :	5.82 oz/sq.yd / 197 g/sq.m
			Chopped Mat :	n/a

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

Laminated Properties 0 ° 0 °

Laminate Weight	E-QX 3500 Resin Infused		E-QX 3500 Open Mold	
Fiber	0.25 lb/sq.ft	1.22 kg/sq.m	0.25 lb/sq.ft	1.22 kg/sq.m
Resin	0.12 lb/sq.ft	0.57 kg/sq.m	0.20 lb/sq.ft	1.00 kg/sq.m
Total	0.37 lb/sq.ft	1.79 kg/sq.m	0.45 lb/sq.ft	2.22 kg/sq.m

Physical Properties	E-QX 3500 Resin Infused		E-QX 3500 Open Mold	
Density	1.08 oz/cu.in	1.87 g/cc	0.98 oz/cu.in	1.69 g/cc
Fiber Content	68% by Wt.	50% by Vol.	55% by Wt.	37% by Vol.
Thickness	0.038 in	1.0 mm	0.052 in	1.3 mm

Laminate Modulii				
	E-QX 3500 Resin Infused		E-QX 3500 Open Mold	
Ex	3.33 MSI	22.98 GPa	2.52 MSI	17.35 GPa
Ey	3.21 MSI	22.16 GPa	2.42 MSI	16.70 GPa
Gxy	0.96 MSI	6.60 GPa	0.72 MSI	4.97 GPa
Ex,flex.	3.17 MSI	21.84 GPa	2.39 MSI	16.48 GPa
Ey,flex.	3.05 MSI	21.05 GPa	2.30 MSI	15.87 GPa

Ultimate Stress				
	E-QX 3500 Resin Infused		E-QX 3500 Open Mold	
Long. Ten.	63.1 KSI	435.1 MPa	47.6 KSI	328.4 MPa
Long. Comp.	63.1 KSI	435.1 MPa	47.6 KSI	328.4 MPa
Trans. Ten.	60.8 KSI	419.4 MPa	45.9 KSI	316.2 MPa
Trans. Comp.	60.8 KSI	419.4 MPa	45.9 KSI	316.2 MPa
In-Plane Shear	18.1 KSI	125.0 MPa	13.7 KSI	94.1 MPa
Long. Flex.	75.3 KSI	519.4 MPa	56.9 KSI	392.0 MPa
Trans. Flex.	72.6 KSI	500.6 MPa	54.7 KSI	377.4 MPa

In-Plane Stiffness, "EA"				
	E-QX 3500 Resin Infused		E-QX 3500 Open Mold	
(EA)x	125,771 lb/in	22,025 N/mm	129,914 lb/in	22,750 N/mm
(EA)y	121,234 lb/in	21,230 N/mm	125,091 lb/in	21,906 N/mm
(GA)xy	36,140 lb/in	6,329 N/mm	37,231 lb/in	6,520 N/mm

Ultimate In-Plane Load				
	E-QX 3500 Resin Infused		E-QX 3500 Open Mold	
Long. Ten.	2,381 lb/in	417 N/mm	2,460 lb/in	431 N/mm
Long. Comp.	2,381 lb/in	417 N/mm	2,460 lb/in	431 N/mm
Trans. Ten.	2,295 lb/in	402 N/mm	2,368 lb/in	415 N/mm
Trans. Comp.	2,295 lb/in	402 N/mm	2,368 lb/in	415 N/mm
In-Plane Shear	684 lb/in	120 N/mm	705 lb/in	123 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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