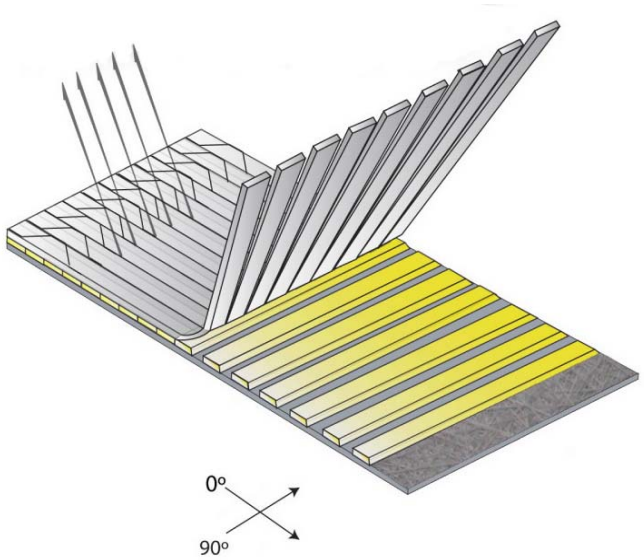
VECTORPLY®
Performance Composite Reinforcements



E-LTM 4410

Fiber Type: E-Glass
Architecture: 0/90 Biaxial
Dry Thickness: 0.066 in. / 1.68 mm
Total Weight: 52.75 oz/sq.yd / 1789 g/sq.m

Roll Specifications			Fiber Architecture Data	
Roll Width:	Roll Weight:	Roll Length:	0 ° :	21.76 oz/sq.yd / 738 g/sq.m
50 in / 1270 mm	198 lb / 90 kg	43 yd / 39 m	45 ° :	n/a
			90 ° :	21.99 oz/sq.yd / 746 g/sq.m
			-45 ° :	n/a
			Chopped Mat :	9.00 oz/sq.yd / 305 g/sq.m

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

Laminated Properties	0 °	0 °

Laminate Weight	E-LTM 4410 Resin Infused		E-LTM 4410 Open Mold	
Fiber	0.36 lb/sq.ft	1.77 kg/sq.m	0.36 lb/sq.ft	1.77 kg/sq.m
Resin	0.17 lb/sq.ft	0.83 kg/sq.m	0.37 lb/sq.ft	1.79 kg/sq.m
Total	0.53 lb/sq.ft	2.60 kg/sq.m	0.73 lb/sq.ft	3.56 kg/sq.m

Physical Properties	E-LTM 4410 Resin Infused		E-LTM 4410 Open Mold	
Density	1.08 oz/cu.in	1.87 g/cc	0.94 oz/cu.in	1.63 g/cc
Fiber Content	68% by Wt.	50% by Vol.	50% by Wt.	32% by Vol.
Thickness	0.055 in	1.4 mm	0.086 in	2.2 mm

Laminate Modulii

	E-LTM 4410 Resin Infused		E-LTM 4410 Open Mold	
Ex	3.43 MSI	23.63 GPa	2.32 MSI	16.01 GPa
Ey	3.48 MSI	23.97 GPa	2.36 MSI	16.25 GPa
Gxy	0.66 MSI	4.52 GPa	0.45 MSI	3.13 GPa
Ex,flex.	3.26 MSI	22.45 GPa	2.21 MSI	15.21 GPa
Ey,flex.	3.30 MSI	22.77 GPa	2.24 MSI	15.43 GPa

Ultimate Stress

	E-LTM 4410 Resin Infused		E-LTM 4410 Open Mold	
Long. Ten.	56.2 KSI	387.6 MPa	38.1 KSI	262.6 MPa
Long. Comp.	64.9 KSI	447.4 MPa	44.0 KSI	303.2 MPa
Trans. Ten.	57.0 KSI	393.1 MPa	38.6 KSI	266.4 MPa
Trans. Comp.	65.8 KSI	453.8 MPa	44.6 KSI	307.6 MPa
In-Plane Shear	14.9 KSI	103.0 MPa	10.4 KSI	71.4 MPa
Long. Flex.	77.5 KSI	534.0 MPa	52.5 KSI	361.9 MPa
Trans. Flex.	78.6 KSI	541.7 MPa	53.2 KSI	367.1 MPa

In-Plane Stiffness, "EA"

	E-LTM 4410 Resin Infused		E-LTM 4410 Open Mold	
(EA)x	187,664 lb/in	32,863 N/mm	200,350 lb/in	35,085 N/mm
(EA)y	190,349 lb/in	33,333 N/mm	203,240 lb/in	35,591 N/mm
(GA)xy	35,890 lb/in	6,285 N/mm	39,186 lb/in	6,862 N/mm

Ultimate In-Plane Load

	E-LTM 4410 Resin Infused		E-LTM 4410 Open Mold	
Long. Ten.	3,078 lb/in	539 N/mm	3,286 lb/in	575 N/mm
Long. Comp.	3,553 lb/in	622 N/mm	3,793 lb/in	664 N/mm
Trans. Ten.	3,122 lb/in	547 N/mm	3,333 lb/in	584 N/mm
Trans. Comp.	3,604 lb/in	631 N/mm	3,848 lb/in	674 N/mm
In-Plane Shear	818 lb/in	143 N/mm	893 lb/in	156 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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