



OCV™ Technical Fabrics

PRODUCT INFORMATION

Biaxial Fabrics (0°/90°)

PRODUCT DESCRIPTION

OCV™ Technical Fabrics Biaxial Fabrics (0°/90°) are a stitch-bonded, non-crimp, composite reinforcement comprised of unidirectional warp (0°) and weft (90°) plies. Stitch-bonded fabrics eliminate fiber crimp inherent in woven products; this increases fiber alignment, allowing for stronger, stiffer laminates at lighter weights while minimizing the formation of resin-rich pockets. Stitch-bonded fabrics also provide improved laminate surface quality. Biaxial Fabrics can be engineered for specific applications requiring different ratios of warp to weft reinforcement. All Biaxial Fabrics are available with a stitch-bonded mat, including chopped strand mat, direct chop (binderless) mat, continuous filament mat, and veil. The versatile fabric, made from high-quality fibers, is available in a variety of widths and weights to meet any requirements. The input fibers are designed to give

controlled wet-out and excellent laminate properties. Each fabric can be combined with a glass mat or veil for enhanced performance or surface finish.

PRODUCT APPLICATION

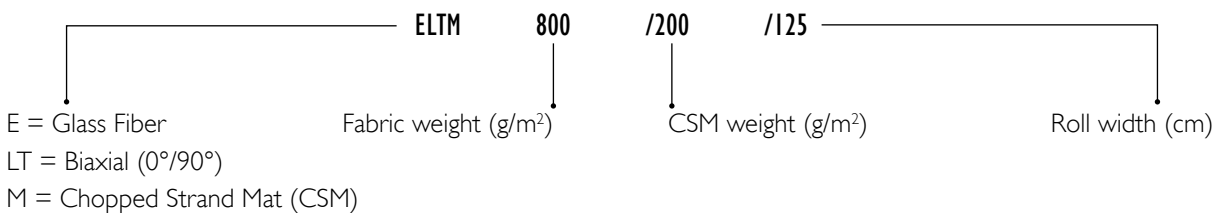
OCV™ Biaxial Fabrics offer improved stiffness without added weight or laminate thickness for high-performance structural laminates. Reduced fabric print-through results in enhanced aesthetics on finished products while offering material and labor savings. These versatile fabrics have been used in a wide array of composite applications, including boat hulls, truck and trailer panels, wind blades, recreational sporting equipment and bridge decks. Since the concentration of reinforcement in each direction can be engineered, Biaxial Fabrics can be considered the reinforcement of choice when the critical design criteria is mechanical performance.

FEATURES

Crimp-free construction	Improved fiber alignment and mechanical properties
Optimized directional fiber content	Reduced resin usage and part weight
High bi-directional strength, stiffness and flex	Improved performance from lighter laminates
Reduce print-through	Enhanced aesthetics with material and labor savings
Available in a variety of widths and weights	Offers solutions for wide range of applications

PRODUCT BENEFITS

PRODUCT NOMENCLATURE





PHYSICAL PROPERTIES / AVAILABLE PRODUCTS

FAMILY	PRODUCT DESCRIPTION	PRODUCT CERTIFICATE Lloyd's approval	TOTAL WEIGHT (g/m ²)	WEIGHT UNIFORMITY (g/m ²)						STANDARD WIDTH (mm)
				Yarn Rovings				Knit yarn	CSM	
				0°	+45°	90°	-45°			
0/90°	ELT 600/150	X	578	284	-	284	-	10	-	1250/2500
	ELTM 600/150	X	728	284	-	284	-	10	150	1250/2500
	ELTM 600/225	X	803	284	-	284	-	10	225	1250/2500
	ELTM 600/300	X	878	284	-	284	-	10	300	1250/2500
	ELTM 600/450	X	1028	284	-	284	-	10	450	1250/2500
	ELT 850	X	860	425	-	425	-	10	-	1250/2500
	ELTM 850/150	X	1010	425	-	425	-	10	150	1250/2500
	ELTM 850/225	X	1085	425	-	425	-	10	225	1250/2500
	ELTM 850/300	X	1160	425	-	425	-	10	300	1250/2500
	ELTM 850/450	X	1310	425	-	425	-	10	450	1250/2500
	ELT 1700	X	1710	850	-	850	-	10	-	1250/2500
	ELTM 1700/150	X	1860	850	-	850	-	10	150	1250/2500
	ELTM 1700/300	X	2010	850	-	850	-	10	300	1250/2500

Others weights, types and combinations are available under request.

SAMPLE MECHANICAL PROPERTIES

Sample Mechanical Properties of Laminate based on ELT 1700 (62% glass content by weight).

	TENSILE (ISO 527-4)		COMPRESSION (ISO 8515)		FLEXURAL (ISO 14.125)	
	Warp mean	Weft mean	Warp mean	Weft mean	Warp mean	Weft mean
Strength	514 MPa	493 MPa	180 MPa	230 MPa	335 MPa	515 MPa
Modulus	25 GPa	22 GPa	25 GPa	20 GPa	12 GPa	26 GPa



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