

# FT-LDF Composite Fiberglass Tie Specifications

**Fibre-Tie™**

Fiberglass Composite Concrete Wall Form Ties

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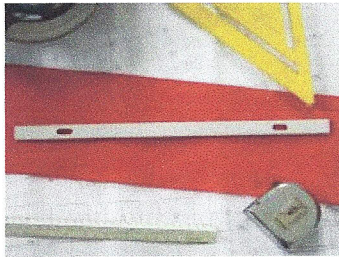
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Fibre-Tie™ is a unique composite fiberglass product for use as a form panel tie with various concrete forming systems. It is an energy-efficient alternative to typical metal form ties used in popular concrete forming systems like Symons®, EMI®, Ellis® and similar steel modular concrete forming systems. The advantages over metal ties include: a natural insulator; magnetically transparent; no rust or corrosion, and no patching or plugging required; high strength; chemically resistant; RF transparent; low maintenance; fire resistant; dimensionally stable: low expansion and contraction; lightweight: pound for pound stronger than steel!

**FT-LDF: A light- to medium-duty specially engineered fiberglass composite tie with a 2,000# load strength for use in shorter walls and low to moderate pressure applications. Standard sizes include 8", 10", 12", 14" and 16", but can be customized to your requirements.**



Fibre-Tie™ features state-of-the-art engineering using a specially formulated blend of superior-quality resins uniquely proportioned with extra strong fibers, manufactured to the highest standards by innovative fiberglass experts, and precision-milled for compatibility with your modular steel-framed form system. Our products are also unique in that they require no additional hardware for you to rent or purchase: Fibre-Tie™ conveniently substitutes for the metal ties you already use with your Symons®, EMI®, Ellis® and other concrete forming systems. This saves you time and money because you don't have to field cut bulk fiberglass rod to your needs, nor modify your installation techniques, as the Fibre-Tie™ is installed exactly as you would normal concrete form ties.

## FT-LDF Material Mechanical Specifications:

<u>Ultimate Tensile Strength:</u>		ASTM D-638		
(PSI)	Longitudinal	30,000	Transverse	6,500
<u>Tensile Modulus:</u>		ASTM D-638		
(PSI)	Longitudinal	2.5x10 <sup>6</sup>	Transverse	0.8 x 10 <sup>6</sup>
<u>Ultimate Compressive Strength:</u>		ASTM D-695		
(PSI)	Longitudinal	30,000	Transverse	15,000
<u>Compressive Modulus:</u>		ASTM D-69		
(PSI)	Longitudinal	2.3x10 <sup>6</sup>	Transverse	0.8x10 <sup>6</sup>
<u>Ultimate Flexural Strength:</u>		ASTM D-790		
(PSI)	Longitudinal	30,000	Transverse	10,000
<u>Flexural Modulus:</u>		ASTM D-790		
(PSI)	Longitudinal	1.6x10 <sup>6</sup>	Transverse	0.8x10 <sup>6</sup>
<u>Shear Strength Short Beam:</u>		ASTM D-2344		
(PSI)	Longitudinal	4,500	Transverse	4,500
<u>Impact Strength -- Izod:</u>		ASTM D-256		
Ft-lb/in	Longitudinal	25	Transverse	4
<u>Hardness -- Barcol:</u>		ASTM D-2583		
	Perpendicular	50		
<u>Mechanical—Full Section Bending: Modulus of Elasticity:</u>				
(PSI)	Longitudinal	2.5x10 <sup>6</sup>		
<u>Electric Strength Short Time(In Oil):</u>		ASTM D-149		
Perpendicular:	200 Volts/mil	Parallel:	35 KV/in	
<u>Thermal Co-Efficient of Expansion:</u>		ASTM D-149		
Longitudinal	5x10 <sup>-6</sup> in/in/°C			
<u>Thermal Conductivity:</u>		Longitudinal BTU/hr/sq ft/in/°F: 4.0		
<u>Water Absorption (24 Hours):</u>		ASTM D-570		
Longitudinal	(%)	0.6 Max		
<u>Density:</u> ASTM D-792		Longitudinal	lbs/in <sup>3</sup>	.0656
<u>Color:</u>		Off-White/very light gray		
<u>Load Test to Milled Pin Slots:</u> minimum 2,000 lbs. to initial failure				
(See attached documentation from American Engineering Testing Inc)				