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## MEMORANDUM

**Date:** May 18, 2007

**Subject:** **Fiberglass UNISTRUT<sup>®</sup> Channel & Flat Fittings Properties Materials, Temperature and Chemical Resistance**

**From:** Unistrut Engineering

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Property	Test	Direction	Unit	Polyester	Vinyl Ester
Tensile Strength	ASTM D-638	Long	PSI	30,000	35,000
		Trans	PSI	7,000	10,000
Modulus of Elasticity	ASTM D-638	Long	PSI	2,500,000	3,000,000
		Trans	PSI	800,000	1,000,000
Electric Strength Short Time - In Oil	ASTM D-149	Perp	Volts / mil	200	200
		Parallel	KV / in	35	35
Dielectric Const	ASTM D-150	Perp		5.0	5.0
Dissipation Factor	ASTM D-150	Perp		0.03	0.03
Arc Resistance	ASTM D-495	Either	Seconds	80	120
Coeff of Thermal Exp	ASTM D-696	Long	in / in / °F	5,000,000	5,000,000
Color				Gray	Beige
Flammability	UL 95			V-0	V-0
Flammability	ASTM E-84			< 25	< 25
Smoke	ASTM E-84			215	215

- Manufactured by the pultrusion process which includes surfacing veils for UV and weather resistance - though fading may occur.
- Operating temperature range is -35°F to +200°F. This range is a general guideline since continual exposure to elevated temperatures reduces strength properties.
- Channels are offered in two (2) distinct profiles: Patented Flange and SST. The Patented Flange profile is intended for use with fiberglass pipe clamps and channel nuts. The SST



Columbia-MBF



KAF-TECH



UNISTRUT



UNISTRUT Construction



profile is intended for use with metallic pipe clamps and channel nuts. Metallic pipe clamps and channel nuts will not fit in the Patented Flange channel. Similarly, fiberglass pipe clamps and channel nuts will not fit in SST channel.

- All cuts and holes should be properly sealed with a clear urethane sealer.
- Load Data – Refer to the latest edition of the General Engineering Catalog
- Chemical compatibility chart – See Attachment