

Pultruded Rod

Technical Data



Typical Property	Test Method	Condition	Units	Value		
				Polyester	EHS	Supersil
Grade				Polyester	EHS	Supersil
Mechanical				Class F-155	Class F-155	Class H-200
Ultimate Tensile Strength	ASTM D-638	RT	PSI	70,000	100,000	70,000
Flexural Strength	ASTM D-790	RT	PSI	70,000	100,000	70,000
		100°C	PSI	25,000		35,000
		150°C	PSI	15,000		20,000
Flexural Modulus	ASTM D-790	RT	PSI	3 x 10 ⁶	6 x 10 ⁶	3 x 10 ⁶
		100°C	PSI	2 x 10 ⁶		2.5 x 10 ⁶
		150°C	PSI	1.5 x 10 ⁶		2.0 x 10 ⁶
Impact Strength	ASTM D-256	RT	Ft-lb/in notch	30	50	30
Compressive Strength						
Flatwise		RT	PSI	20,000	20,000	20,000
Lengthwise		RT	PSI	40,000	40,000	40,000
Electrical						
Electrical Strength		ASTM D-149				
Perpendicular (1/8 thick)		In Oil	VPM	300	300	300
Parallel		In Oil	KV/in	50	50	50
Power Factor 60 Hz	ASTM D-150			0.03	0.03	0.03
Dielectric Constant 60 Hz	ASTM D-150			5.0	5.0	5.0
Arc Resistance	ASTM D-495		Sec	100	100	120
Other						
Thermal Coefficient of Expansion		ASTM D-696	in/in/°F	3 x 10 ⁻⁶	3 x 10 ⁻⁶	3 x 10 ⁻⁶
Thermal Conductivity			BTU/hr/sq ft/in/°F	4	5	4
Weight Loss	200 hrs @ 150°C		%	1.00		0.17
	200 hrs @ 200°C		%	6.10		0.75
Extractables in Freon 22			%	1.05		0.19
Specific Gravity	ASTM D-792			1.95	1.95	1.95
Water Absorption	ASTM D-349	24 hrs	%	0.30	0.10	0.30
Color (standard)				White	Clear	Gray

Other Grades Available

FR	Flame Retardant — Electrical Grade	} UL Listing E55403
TR	Track Resistant — Flame Retardant Electrical Grade	

Polyglas Polyester: General Purpose Grade for in-place temperatures up to 155°C (class F materials). Polyglas Polyester is a recognized component in most UL Listed insulation systems requiring 130C, 155C and 180C temperature ratings.

Polyglas Supersil: High Temperature Grade for in-place temperatures up to 200C (class H material). Polyglas Supersil is a recognized component in most UL Listed insulation systems requiring 180C, 200C and 220C temperature ratings.

Polyglas EHS: Extra High Strength - This grade provides very high flexural and tensile strength and modulus.

Polyglas FR and TR: UL Listed (File E55403) — Flame retardant and track resistant material.

Polyglas C: Corrosion Resistant — vinyl ester. Liberty Pultrusions stocks a number of sizes and grades of material in 96 in. lengths. Special colors and resin systems available.

The above data is based on results achieved in the test methods indicated and is provided for information purposes only.