

# Structural Pultrusions



## Technical Data

Property	Test Method	Direction	Unit	Polyglas F	Polyglas C	Polyglas M
<b>Mechanical Coupon</b>						
Ultimate Tensile Strength	ASTM D-638	Longitudinal	PSI	30,000	30,000	30,000
	ASTM D-638	Transverse	PSI	6,500	7,000	6,500
Tensile Modulus	ASTM D-638	Longitudinal	PSI	2.5 x 10 <sup>6</sup>	2.6 x 10 <sup>6</sup>	2.5 x 10 <sup>6</sup>
	ASTM D-638	Transverse	PSI	0.8 x 10 <sup>6</sup>	0.8 x 10 <sup>6</sup>	0.8 x 10 <sup>6</sup>
Ultimate Compressive Strength	ASTM D-695	Longitudinal	PSI	30,000	30,000	30,000
	ASTM D-695	Transverse	PSI	15,000	16,000	15,000
Compressive Modulus	ASTM D-695	Longitudinal	PSI	2.3 x 10 <sup>6</sup>	2.6 x 10 <sup>6</sup>	2.3 x 10 <sup>6</sup>
	ASTM D-695	Transverse	PSI	0.8 x 10 <sup>6</sup>	1.0 x 10 <sup>6</sup>	0.8 x 10 <sup>6</sup>
Ultimate Flexural Strength	ASTM D-790	Longitudinal	PSI	30,000	30,000	30,000
	ASTM D-790	Transverse	PSI	10,000	10,000	10,000
Flexural Modulus	ASTM D-790	Longitudinal	PSI	1.6 x 10 <sup>6</sup>	1.6 x 10 <sup>6</sup>	1.6 x 10 <sup>6</sup>
	ASTM D-790	Transverse	PSI	0.8 x 10 <sup>6</sup>	0.8 x 10 <sup>6</sup>	0.8 x 10 <sup>6</sup>
Shear Strength Short Beam	ASTM D-2344	Longitudinal	PSI	4,500	5,500	4,500
	ASTM D-2344	Transverse	PSI	4,500	5,500	4,500
Impact Strength Izod	ASTM D-256	Longitudinal	Ft-lb/in	25	25	25
	ASTM D-256	Transverse	Ft-lb/in	4	4	4
Hardness - Barcol	ASTM D-2583	Perpendicular		40	45	40
<b>Mechanical - Full Section Bending</b>						
Modulus of Elasticity		Longitudinal	PSI	2.5 x 10 <sup>6</sup>	2.8 x 10 <sup>6</sup>	2.5 x 10 <sup>6</sup>
<b>Electrical</b>						
Electric Strength Short Time (In Oil)	ASTM D-149	Perpendicular	Volts/mil	200	200	200
	ASTM D-149	Parallel	KV/in	35	35	35
<b>Other</b>						
Thermal Coefficient of Expansion	ASTM D-696	Longitudinal	in/in/°C	5 x 10 <sup>-6</sup>	5 x 10 <sup>-6</sup>	5 x 10 <sup>-6</sup>
Thermal Conductivity		Longitudinal	BTU/hr/sq ft/in/°F	4.0	4.0	4.0
Flame Class	UL 94			V-O		
Flame Spread (UL Tunnel Test)	ASTM E-84			25 or less	25 or less	
Water Absorption 24 Hours	ASTM D-570	Longitudinal	%	0.6 Max	0.6 Max	0.6 Max
Density	ASTM D-792	Longitudinal	lbs/in <sup>3</sup>	0.0656	0.0656	0.0656
Color (Standard)				Gray	Beige	Olive

\* Polyglas F = fire retardant, polyester, gray color

\* Polyglas C = fire retardant, vinyl ester, beige color

\* Polyglas M = non-fire retardant, polyester, olive color

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

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