

Design Guidelines For Pultruded Composites

Properties	Units	Test Procedure	Solid & Bar		Structural Profiles	
			Rod	Bar	Longitudinal	Transverse
Glass Content, % by weight		ASTM D2584	75	65	47	-
Tensile Strength	kpsi (Mpa)	ASTM D3916/D638	120 (827)	100 (689)	42.2 (6.15)	10.1 (1.46)
Tensile Modulus	mpsi (Gpa)	ASTM D3916/D638	6.0 (41.4)	5.5 (37.9)	2.66 (18.3)	1.05 (7.24)
Flexural Strength	kpsi (Mpa)	ASTM D4476/D790	120 (827)	100 (689)	64.6 (445)	21.4 (148)
Flexural Modulus	mpsi (Gpa)	ASTM D4476/D790	6.0 (41.4)	5.5 (37.9)	2.09 (14.4)	1.24 (8.55)
Compressive Strength	kpsi (Mpa)	ASTM D695	70 (483)	60 (414)	26.25 (181)	- -
Barcol Hardness		ASTM D2583	60	50	50	-
Izod Impact, ft.-lb./in.	(N-m)	ASTM D256	40 (54)	40 (54)	40 (54)	- -
Specific Gravity	(g/cc)	ASTM D792	2.0 -	1.9 -	1.72 -	- -
Density, lbs./in ³	(g/cc)	ASTM D792	.073 (2.02)	.069 (1.91)	.062 (1.72)	- -
Water Absorption, % (weight increase after 24 hrs. immersion)		ASTM D570	.05	.10	.70	-
Coefficient Of Thermal Expansion in./in./°C x 10 ⁻⁶ (Axial)	(mm/mm/C)	ASTM D696	5.3 5.3	- -	- -	- -
Dielectric Strength, volts/mil. (Method A, type 3 electrode)	(volts/mm)	ASTM D149	140	-	-	-
Dielectric Strength, kv./in. (Method A, type 1 electrode)	(kv/cm)	ASTM D149	60 (23.6)	- -	- -	- -
Dielectric Constant, 60 Hz		ASTM D150	5.4	-	-	-
Arc Resistance, seconds		ASTM D495	120	-	-	-
Volume Resistivity, ohm-cm x 10 ¹⁴		ASTM D257	2.5	-	-	-

The above data is representative of a specific formula and not typical of all custom formulated products. The information given is based on data received of others and is presented with every belief in its accuracy. Seller makes no warranty except that the goods shall meet specifications of buyer.