Formo Fibreglass
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GENERAL SPECIFICATION FOR STRUCTURAL PULTRUDED SHAPES

A. Structural shapes shall be made from a premium grade iso-polyester or vinyl ester resin. All structural shapes shall contain a UV inhibitor.

B. Manufactured by the pultrusion process

Structural GRP members composition shall consist of a glass fibre reinforced polyester or vinyl ester resin matrix, approximately 50% resin to glass ratio. A synthetic surface veil shall be the outermost layer covering the exterior surfaces. Continuous glass strand roving shall be used internally for longitudinal strength. Continuous strand glass mats shall be used internally for transverse strength.

C. The following minimum mechanical properties shall apply:

Table 1 - Fibreglass Pultruded Material Properties
Minimum ultimate coupon properties (UN)

Material Properties	**ASTM Test Method**	**(MPa)**
Pultruded Fibreglass Structural Shapes		
Ultimate tensile stress in longitudinal direction	D638	207
Ultimate compressive stress in longitudinal direction	D695	207
Ultimate flexural stress in longitudinal direction	D790	207
Ultimate short beam shear in longitudinal direction	D2344	31
Ultimate tensile stress in transverse direction	D638	48
Ultimate compressive stress in transverse direction	D695	103
Ultimate flexural stress in transverse direction	D790	69
Density (g/cm^3)	D792	1.66-1.94
Water absorption (24-h immersion)	D570	0.60 max, % by weight
Barcol Hardness	D2583	40
Coefficient of thermal	D696	8
Expansion	-	4.4
Thermal conductivity	C177	4