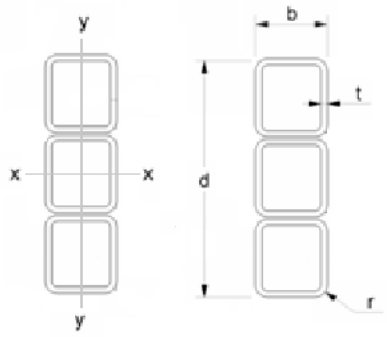
PULTRUDED FRP STRUCTURAL BONDED SECTIONS

USING 100x100 PULTRUSIONS



PRODUCT SPECIFICATIONS

SECTION PROPERTIES

Designation			Radii		Gross Section Area	About x-, y- and n- axis			
Depth d	Width b	Thickness t	Internal r_i	External r_e	A_g	Moment of Inertia about the x axis I_x	Moment of Inertia about the y axis I_y	Polar Moment of Inertia about the n axis Z_n	Torsion Constant J
(mm)	(mm)	(mm)	(mm)	(mm)	(mm^2)	($10^6 mm^4$)	($10^6 mm^4$)	($10^6 mm^4$)	($10^6 mm^4$)
200	100	5.25	4.75	10	3863.35	15.46	5.727	21.19	12.75
300	100	5.25	4.75	10	5795.03	47.53	8.591	56.13	21.6
400	100	5.25	4.75	10	7726.71	108.81	11.455	120.27	30.75
500	100	5.25	4.75	10	9658.39	209.03	14.319	223.35	40.04

MECHANICAL PROPERTIES

Designation	Mass m	Density ρ	Ultimate Tensile Strength σ_T		Ultimate Compressive Strength σ_C		Shear Strength	Modulus Of Elasticity E		Moment Capacity M
			Longitudinal	Transverse	Longitudinal	Transverse		Longitudinal	Transverse	
	(kg/m)	(kg/m^3)	(Mpa)	(Mpa)	(Mpa)	(Mpa)	(Mpa)	(N/mm^2)	(N/mm^2)	(kN.m)
200x100x5.25	7.61	1970	650	41	550	104	84	35400	12900	36.81
300x100x5.25	11.42	1970	650	41	550	104	84	35400	12900	75.44
400x100x5.25	15.22	1970	650	41	550	104	84	35400	12900	129.51
500x100x5.25	19.03	1970	650	41	550	104	84	35400	12900	199.04

MATERIAL REDUCTION FACTORS

Material Partial Safety Factor	Short Term Loading	Long Term Loading
Load Multiplier	1.3	3.16
Material Reduction Factor	0.79	0.32

1. Web sections are created by bonding multiple pultrusion lengths
2. Shear capacity between bonds = 40 MPa