

Fiberglass Reinforced Plastic (FRP) Pultruded profiles

Physical Properties

Property	Unit	Direction	Type of pultruded products	
			Profiles	Rods & bars
Barcol Hardness			40	45
24hr water absorption	%		0.5	0.25
Specific gravity			1.72-1.98	1.8-2.1
Coefficient of thermal expansion	10-6C	LW	8.0	5.4
Thermal conductivity	W/m.K		0.28	
Dielectric strength	MV/m	LW	3.0	3.0
		PF	3.28	

Mechanical Properties

Property	Unit	Direction	Type of pultruded products	
			profiles	Rods & bars
Tensile Strength	Mpa	LW	160	590
		CW	35	
Tensile Modulus	GPa	LW	12	32.
		CW	4.5	
Flexural Strength	MPa	LW	160	590
		CW	50	
Flexural Modulus	GPa	LW	10	30
		CW	4.5	
Compressive Strength	Mpa	LW	160	300
		CW	75	
Compressive Modulus	GPa	LW	14	
		CW	5.0	
Shear Modulus	GPa	LW	2.0	
Shear Strength	MPa	LW	20	25

Remarks: LW=Lengthways, CW=transverse, PF=perpendicular to laminate face.