

Polyester Structural Profile Material Specifications

All profiles are made in isothalic polyester UV stabilised resin with a surface veil.
Stock profiles less than 6mm are made to E17 specification. Stock profiles 6mm and greater are made to E23 specification

Description BS EN 13706	Units	Grade E17	Grade 23	Grade E30
Full Section Modulus	GPa	17	23	30
Tensile Strength (axial)	MPa	170	240	300
Tensile Strength (transverse)	MPa	30	50	50
Tensile Modulus (axial)	GPa	17	23	30
Tensile Modulus (transverse)	GPa	5	7	7
Flexural Strength (axial)	MPa	170	240	300
Flexural Strength (transverse)	MPa	70	100	100
Inter-laminar Shear	MPa	15	25	25
Pin Bearing Strength	MPa	50	70	70
Density	g/m3	1.8-2.0		1.9-2.1
Water Absorption	0.5% – 2%			
Thermal Expansion	7.2 x 10 ⁻⁶ /K			
Heat Distortion Temp	125-145°C			

Electrical Properties	
Electrical Surface Resistivity	10 ¹² OHMS
Volume Resistivity	10 ¹⁵ OHMS
Insulation Resistance	M Ohm 1000
Dielectric Strength @ 90 ⁰	Kv/mm 25
Dielectric Strength @ 90 ⁰	KV 75
Permittivity @ 50 Hz	5
Dissipation Factor	0.02
Comparative Tracking	V 600
Arc Resistance	s 300

