

**GENERAL DESCRIPTION**

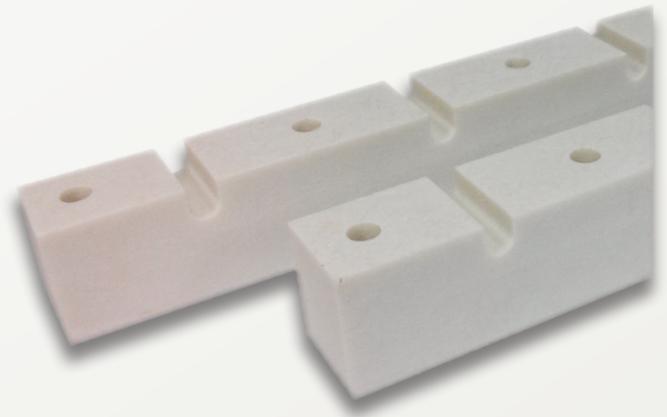
UPM S1 is a specially formulated polyester glass composite offering a superior balance of mechanical and electrical properties, that surpasses GPO-3 and moulded polyester glass products. Designed for use in electrical equipment as structural insulating components, such as busbar supports and cleats.

**FEATURES & BENEFITS**

- Excellent electrical insulating properties
- Great mechanical strength
- V0 Flammability rating

**APPLICATIONS**

- Structural supports in electrical equipment including switchboards and switchgear.

**GENERAL INFORMATION**

Material	Glass Fibre Reinforced Polyester Resin
Colour	White

TECHNICAL DATA	NORM	UNITS	VALUE
<b>Mechanical</b>			
Specific Gravity	ISO 1183	g/cm <sup>3</sup>	1.85
Bending Strength (Perpendicular)	ISO 178	N/mm <sup>2</sup>	200
Modulus of Elasticity in Flexion (Perpendicular)	ISO 178	N/mm <sup>2</sup>	13,000
Compressive Strength RT (Perpendicular)	ISO 604	N/mm <sup>2</sup>	350
Compressive Strength RT (Parallel)	ISO 604	N/mm <sup>2</sup>	200
Impact Strength RT (Perpendicular)	ISO 179	kJ/m <sup>2</sup>	210
Delaminating Force RT (Parallel)	DIN 53463	N	2,800
Water Absorption	ISO 62	%	< 0.5
Tensile Strength (Parallel)	ISO 527	N/mm <sup>2</sup>	123

TECHNICAL DATA	NORM	UNITS	VALUE
<b>Thermal</b>			
Coefficient of Linear Expansion (Parallel)	METTLER TMA	$10^{-6} \times K^{-1}$	15-30
Thermal Conductivity	DIN 52612	W/mK	ca. 0.29
Flammability	UL 94 V0		V0/3mm
			F0
			M1
Thermal Endurance	IEC 60216	T.I.	155
Insulation Class	IEC 60085	---	F
<b>Electrical</b>			
Electric Strength (Perpendicular)	IEC 60243	kV/mm	13
Track Resistance	IEC 60112	CTI	CTI 600 M
High Voltage Tracking Index	IEC 60587	min/2.5 kV	400

#### MACHINING & FABRICATION

Insulect's manufacturing capabilities form a key part of the trusted service we offer our customers. Our two modern, well equipped facilities – in Brisbane and Melbourne – work with a wide range of electrical, thermal and mechanical materials – including plastics, composites and cellulose-based products.

We offer short run, specialty or volume based machining and fabrication for almost any application and can produce cut-to-order sheets or finished components. Coupled with our highly-trained and experienced team, we are able to deliver on the most complex of customer requirements.