

StyLight Structural S G600-3

StyLight Thermoplastic Composite

TECHNICAL DATASHEET

DESCRIPTION

StyLight Structural S G600-3 is a continuous fiber reinforced thermoplastic composite based on a modified SAN matrix optimized for structural applications. StyLight is our innovative continuous fiber reinforced thermoplastic composite based on styrenic copolymers for lightweight design. This combination of structural stiffness, aesthetics, processability and dimensional stability makes StyLight an excellent solution for high performance applications.

FEATURES

- Excellent mechanical performance
- Very high dimensional stability
- Very good processing
- High impact strength
- Low moisture absorption

APPLICATIONS

- Seat structures
- Interior trims
- Drones

Property, Test Condition	Standard	Unit	Values
Mechanical Properties			
Tensile Modulus, 0° fiber direction, 23°C	ISO 527-4	GPa	29.5
Tensile Strength, 0° fiber direction, 23°C	ISO 527-4	MPa	560
Tensile Elongation, 0° fiber direction, 23°C	ISO 527-4	%	2.5
Flexural Modulus, 0° fiber direction, 23°C	ISO 14125	GPa	34
Flexural Strength, 0° fiber direction, 23°C	ISO 14125	MPa	800
Thermal Properties			
Heat Deflection Temperature A; (annealed 4 h/80 °C; 1.8 MPa)	ISO 75	°C	108
Glass transition temperature	ISO 75	°C	110
Other Properties			
Density	ISO 1183	kg/m³	1770
Moisture Absorption, Equilibrium 23 °C/50% RH	ISO 62	%	0.08
TVOC	VDA 277	ppm	41
Processing			
Maximum Sheet Heating Temperature	-	°C	250
Mold Temperature Range (Isotherm)	ISO 294	°C	90 - 100

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Property, Test Condition	Standard	Unit	Values
Minimum Sheet Temperature Before Mold Closing	-	°C	180 - 200
Molding Pressure	-	Bar	10 - 20
Material Description			
Area weight per layer	-	g/m ²	900
Thickness per layer	-	mm	0.5
Fibre Volume Content	-	%	47