INEOS STYROLUTION

StyLight Structural S G580-1

StyLight Thermoplastic Composite

TECHNICAL DATASHEET

DESCRIPTION

StyLight Structural S G580-1 is a thermoplastic composite based on a modified SAN matrix optimized for structural applications. StyLight is our innovative 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	22.6
Tensile Strength, 0° fiber direction, 23°C	ISO 527-4	MPa	450
Tensile Elongation, 0° fiber direction, 23°C	ISO 527-4	%	2.4
Flexural Modulus, 0° fiber direction, 23°C	ISO 14125	GPa	27.4
Flexural Strength, 0° fiber direction, 23°C	ISO 14125	MPa	590
Thermal Properties			
Heat Deflection Temperature A; (annealed 4 h/80 °C; 1.8 MPa)	ISO 75	°C	108
Coefficient of Linear Thermal Expansion	ISO 11359	10^{-6}/°C	13
Glass transition temperature	ISO 75	°C	110
Other Properties			
Density	ISO 1183	kg/m³	1750
Moisture Absorption, Equilibrium 23 °C/50% RH	ISO 62	%	0.08
TVOC	VDA 277	ppm	41
Processing			
Mold Temperature Range	ISO 294	°C	60 - 80

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Property, Test Condition	Standard	Unit	Values
Sheet Temperature Range before Mold Closing	-	°C	180
Consolidation Pressure	-	MPa	0.5 - 2
Melt Temperature Backmolding	-	°C	240 - 280
Material Description			
Area weight	-	g/m²	580
Yarn	-	tex	1200
Glass Fibre content	-	%	45
Thickness per layer	-	mm	0.5

Typical values for uncolored products

DISCLAIMER

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