INEOS STYROLUTION

StyLight Aesthetic S G290-1

StyLight Thermoplastic Composite

TECHNICAL DATASHEET

DESCRIPTION

StyLight Aesthetic S G-290-1 is a thermoplastic composite based on modified SAN matrix optimized for semi structural aesthetic 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
- High surface quality
- Very good processing
- High impact strength
- Low moisture uptake

APPLICATIONS

- Seat structures
- Interior trims
- Orthoses
- Bicycle seats
- Back covers for electronics
- Drones

Property, Test Condition	Standard	Unit	Values
Mechanical Properties			
Tensile Modulus, 0° fiber direction, 23°C	ISO 527-4	GPa	23.9
Tensile Strength, 0° fiber direction, 23°C	ISO 527-4	MPa	490
Tensile Elongation, 0° fiber direction, 23°C	ISO 527-4	%	2.6
Flexural Modulus, 0° fiber direction, 23°C	ISO 14125	GPa	25.5
Flexural Strength, 0° fiber direction, 23°C	ISO 14125	MPa	720
Dart drop, EP, 23°C	ISO 6603	J	9.65
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			

Contact us:
Phone +49 (2133) 9309 – 168
INSTY.emea@ineos.com
www.ineos-styrolution.com

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Property, Test Condition	Standard	Unit	Values
Mold Temperature Range	ISO 294	°C	120 - 200
Sheet Temperature Range before Mold Closing	-	°C	200
Consolidation Pressure	-	MPa	0.5 - 2
Melt Temperature Backmolding	-	°C	240 - 280
Material Description			
Area weight	-	g/m²	290
Yarn	-	tex	204
Glass Fibre content	-	%	45
Thickness per layer	-	mm	0.25

Typical values for uncolored products

DISCLAIMER

The aforementioned data shall constitute the agreed contractual quality of the product sold by INEOS Styrolution at the time of passing of risk. INEOS Styrolution does not make any further warranty, representation or guarantee of any kind, express or implied, regarding the suitability of the product for any particular purpose or application and INEOS Styrolution disclaims all liability in connection therewith. The customer himself is required to verify whether or not the product is suitable for the further processing or application intended and whether or not the product complies with the relevant statutory requirements. Unless explicitly and individually otherwise agreed in writing, INEOS Styrolution's sole and exclusive liability with respect to its products is set forth in INEOS Styrolution's General Terms and Conditions for Sale.

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