Polypropylene

Fibremod™ GB306SAF-9502

Description

Fibremod GB306SAF-9502 is a 35 % chemically coupled high performance glass fibre reinforced polypropylene compound intended for injection moulding. The product is available in standard black 9502.

This material shows excellent mechanical properties also at elevated temperatures.

Applications

Fibremod GB306SAF-9502 has been developed especially for demanding applications in under the bonnet applications.

Air intake manifolds
Parts for cooling systems
Fans and shrouds
Technical components exposed to high heat and loads

Special features

Long term high heat stabilised
Copper (Cu) stabilised

Physical Properties

Property	Typical Value Data should not be used for specification work	Test Method
Density	1180 kg/m³	ISO 1183
Melt Flow Rate (230 °C/2,16 kg)	2 g/10min	ISO 1133
Flexural Modulus (2 mm/min)	8.000 MPa	ISO 178
Flexural Strength	170 MPa	ISO 178
Tensile Modulus (1 mm/min)	9.000 MPa	ISO 527-2
Tensile Strain at Break (50 mm/min)	2,8 %	ISO 527-2
Tensile Strength	118 MPa	ISO 527-2
Heat Deflection Temperature (1,80 MPa)	154 °C	ISO 75-2
Vicat softening temperature B, (50 N)	142 °C	ISO 306
Charpy Impact Strength, notched (23 °C)	11 kJ/m²	ISO 179/1eA
Charpy Impact Strength, notched (-20 °C)	10 kJ/m²	ISO 179/1eA
Charpy Impact Strength, unnotched (23 °C)	58 kJ/m²	ISO 179/1eU
Charpy Impact Strength, unnotched (-20 °C)	54 kJ/m²	ISO 179/1eU
Izod Impact Strength, notched (23 °C)	11 kJ/m²	ISO 180/1A
Izod Impact Strength, notched (-20 °C)	10 kJ/m²	ISO 180/1A

Application Related Tests

Property	Typical Value Data should not be used for specification work	Test Method
Average process Shrinkage (in flow, 150x80x2 mm) [1]	0,1 - 0,2 %	Borealis Method
Average process Shrinkage (cross flow, 150x80x2 mm)	0,8 - 1,2 %	Borealis Method

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[1] VALUES MAY ONLY BE USED AS INDICATION, AND SHOULD NOT BE USED DIRECTLY IN MOULD DESIGN WITHOUT PRIOR VALIDATION

Processing Techniques

The actual conditions will depend on the type of equipment used.

Injection Moulding

Following moulding parameters should be used as guidelines:

Feeding temperature	40 - 80 °C
Mass temperature	230 - 280 °C
Back pressure	Low to medium
Holding pressure	30 - 60 MPa
Mould temperature	30 - 50 °C
Screw speed	Low to medium
Flow front speed	100 - 200 mm/s

Storage

Fibremod GB306SAF-9502 should be stored in dry conditions at temperatures below 50°C and protected from UV-light. Improper storage can initiate degradation, which results in odour generation and colour changes and can have negative effects on the physical properties of this product.

Safety

The product is not classified as dangerous.

Please see our "Safety data sheet" / "Product safety information sheet" for details on various aspects of safety, recovery and disposal of the product. For more information, contact your Borealis representative.

Recycling

The product is suitable for recycling using modern methods of shredding and cleaning. In-house production waste should be kept clean to facilitate direct recycling.

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