PRODUCT DATA SHEET

Polypropylene
Fibremod™ GB205U

Polypropylene Compound, Glass Fibre Reinforced

Description

Fibremod GB205U is a 20% chemically coupled glass fibre reinforced polypropylene compound intended for injection moulding. The product is available in natural but other colours can be provided on request.

This material shows excellent mechanical properties also at elevated temperatures.

Applications

Fibremod GB205U has been developed especially for demanding applications in various engineering sectors.

Technical components exposed to high heat and loads
Under the bonnet components
Washing machine parts

Special Features

High heat stabilised
UL registered under File E108112
Detergent resistant

Physical Properties

Property	Typical Value Data should not be used for specification work	Test Method
Density	1040 kg/m³	ISO 1183
Melt Flow Rate (230 °C/2,16 kg)	2 g/10min	ISO 1133
Flexural Modulus (2 mm/min)	4.400 MPa	ISO 178
Tensile Strength (50 mm/min)	80 MPa	ISO 527-2
Heat Deflection Temperature B (0,45 MPa)	154 °C	ISO 75-2
Charpy Impact Strength, notched (23 °C)	11 kJ/m²	ISO 179/1eA
Charpy Impact Strength, notched (-20 °C)	8 kJ/m²	ISO 179/1eA

Values determined on standard injection moulded specimens conditioned at 23°C and 50% relative humidity after at least 96 hours storage time.

Application Related and Other Tests

Property	Typical Value Data should not be used for specification work	Test Method
Fogging (100 °C,16 h)	< 2 mg	DIN 75201
Emission	< 50 µgC/g	VDA 277

Processing Techniques

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

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Injection Moulding
This product is easy to process with standard injection moulding machines.

Following moulding parameters should be used as guidelines:

Feeding temperature	40 - 80 °C
Mass temperature	220 - 260 °C
Holding pressure	30 - 60 MPa
Back pressure	As low as possible
Mould temperature	30 - 50 °C
Screw speed	Low to medium
Flow front speed	100 - 200 mm/s

Storage

Fibremod GB205U 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 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.

Please see our "Safety data sheet" / "Product safety information sheet" for details on various aspects of recovery and disposal of the product.

Regional Availability

Europe
For information on regional availability please contact Borealis Sales Representative.