Polypropylene
Fibremod™ GE225U

Polypropylene Compound, Glass Fibre Reinforced

Description

Fibremod GE225U is a 20% chemically coupled glass fibre reinforced polypropylene compound intended for injection moulding.

This material shows excellent mechanical properties also at elevated temperatures.

Applications

Fibremod GE225U has been developed especially for demanding applications in under the bonnet applications.

Technical components exposed to high heat and loads
Air filters
Lamp housings
Automotive under the bonnet parts

Special features

Long term high heat stabilised
Very high flowability
High dimensional stability

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)	13 g/10min	
Flexural Modulus (2 mm/min)	4.200 MPa	ISO 178
Flexural Strength	95 MPa	ISO 178
Tensile Modulus (1 mm/min)	5.000 MPa	ISO 527-2
Tensile Strain at Break (50 mm/min)	2,9 %	ISO 527-2
Tensile Strength	70 MPa	ISO 527-2
Heat Deflection Temperature A (1,80 MPa)	135 °C	ISO 75-2
Heat Deflection Temperature B (0,45 MPa)	145 °C	ISO 75-2
Vicat softening temperature (10 N)	160 °C	ISO 306
Vicat softening temperature (50 N)	126 °C	ISO 306
Charpy Impact Strength, notched (23 °C)	7 kJ/m²	ISO 179/1eA
Charpy Impact Strength, notched (-20 °C)	5 kJ/m²	ISO 179/1eA
Charpy Impact Strength, unnotched (23 °C)	32 kJ/m²	ISO 179/1eU
Charpy Impact Strength, unnotched (-20 °C)	22 kJ/m²	ISO 179/1eU

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

Borealis AG | Wagramer Strasse 17-19 | 1220 Vienna | Austria
Telephone +43 1 224 00 0 | Fax +43 1 22 400 333
FN 269858a | CCC Commercial Court of Vienna | Website www.borealisgroup.com

BOREALIS

Polypropylene
Fibremod GE225U

Application Related Tests

Property	Typical Value Data should not be used for specification work	Test Method
Emission	35 µgC/g	VDA 277
Average process Shrinkage (in flow, 150x80x2 mm) [1]	0,2 %	Borealis Method
Average process Shrinkage (cross flow, 150x80x2 mm) [1]	1 %	Borealis Method

[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
This product is easy to process with standard injection moulding machines. Following parameters should be used as guidelines:

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

Storage
Fibremod GE225U 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.

Borealis AG | Wagramer Strasse 17-19 | 1220 Vienna | Austria
Telephone +43 1 224 00 0 | Fax +43 1 22 400 333
FN 269858a | CCC Commercial Court of Vienna | Website www.borealisgroup.com

Polypropylene
Fibremod GE225U

Disclaimer

The product(s) mentioned herein are not intended to be used for medical, pharmaceutical or healthcare applications and we do not support their use for such applications.

To the best of our knowledge, the information contained herein is accurate and reliable as of the date of publication; however we do not assume any liability whatsoever for the accuracy and completeness of such information.

Borealis makes no warranties which extend beyond the description contained herein. Nothing herein shall constitute any warranty of merchantability or fitness for a particular purpose.

It is the customer's responsibility to inspect and test our products in order to satisfy itself as to the suitability of the products for the customer's particular purpose. The customer is responsible for the appropriate, safe and legal use, processing and handling of our products.

No liability can be accepted in respect of the use of any Borealis product in conjunction with any other products and/or materials. The information contained herein relates exclusively to our products when not used in conjunction with any other material unless as specifically provided for in the test methods stated above.

Borealis AG | Wagramer Strasse 17-19 | 1220 Vienna | Austria
Telephone +43 1 224 00 0 | Fax +43 1 22 400 333
FN 269858a | CCC Commercial Court of Vienna | Website www.borealisgroup.com