PRODUCT DATA SHEET

Polypropylene

Fibremod™ GB477HP

Polypropylene Glass Fibre Reinforced Compound

Description

Fibremod GB477HP is a 40% chemically coupled high performance glass fiber reinforced polypropylene compound intended for injection molding. The product is available in standard black and special UV stabilized black for exterior applications.

Typical characteristics

Fibremod™ GB477HP can be described with following typical characteristics:

- Excellent stiffness
- Good processability
- Low emission

Applications

Fibremod™ GB477HP is intended for following applications:

- Front end carriers
- Pedal carriers
- Structural parts
- Tank hinges
- Under the bonnet components
- Fans and shrouds

Physical properties

Property	Typical value *	Unit	Test method
Density	1230	kg/m³	ISO 1183-1
Melt flow rate (230 °C/2.16 kg)	2.5	g/10min	ISO 1133-1
Flexural modulus (2 mm/min)	9000	MPa	ISO 178
Tensile strength (50 mm/min)	127	MPa	ISO 527-2
Heat deflection temperature B (0.45 MPa)	163	°C	ISO 75-2
Charpy impact strength, notched (23 °C)	12	kJ/m²	ISO 179-1/1eA
Charpy impact strength, notched (-20 °C)	11	kJ/m²	ISO 179-1/1eA

* Data should not be used for specification work

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

Other properties

Property	Typical value *	Unit	Test method
Total emission (headspace)	<50	µg C/g	VDA 277
Fogging (100 °C,16 h)	<2	mg	DIN 75201
Spiral flow length (230 °C, 40 °C, 600 bar)	440	mm	Borealis test method

* Data should not be used for specification work

Processing techniques

Injection Molding
To avoid residual humidity from transport or storage, the material should be pre-dried approximately 3 hours at 80°C.
Following molding parameters should be used as guideline:

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Processing setting	Typical value/range
Feed section temperature	40 - 80 °C
Mass temperature	220 - 260 °C
Back pressure [1]	
Holding pressure	30 - 70 MPa
Mould temperature	30 - 70 °C
Screw speed [1]	
Flow front speed	100 - 200 mm/s

[1] *Low to medium*

This product is easy to process with standard injection molding machines. The actual conditions will depend on the type of equipment used.

Packaging and storage

Fibremod™ GB477HP should be stored in dry conditions at temperatures below 50°C and protected from UV-light. Improper storage can initiate degradation, which can result in odour generation and colour changes and can have negative effects on the physical properties of this product.

Product compliance documents

Latest versions of product safety information sheets (PSIS), product safety data sheets (SDS) and other product liability documents are available in our website www.borealisgroup.com.

Sustainability aspects

Borealis is ever mindful of the impact of our products on the planet. We promote Design for Circularity (DfC) and Design for Recycling (DfR) to conserve natural resources and to reduce the environmental impact of products over their entire lifetime (including production, use phase and after phase). DfR helps ensure that material can be effectively recycled while maximizing the material performance efficiency.

Further information on sustainability and Design for Recycling (DfR) can be found from our websites www.borealisgroup.com and www.borealiseverminds.com.

Regional Availability

Europe

South America: grade available under the name GB477HPB

North America: grade available under the name GB477HPU

For information on regional availability please contact Borealis Sales Representative.

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.
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