

Polypropylene

Fibremod™ GD577SF

Polypropylene Glass Fibre Reinforced Compound

Description

Fibremod GD577SF is a 50% chemically coupled high performance glass fiber reinforced polypropylene compound intended for injection molding. This material shows excellent stiffness combined with good surface quality. The compound is available in black 9502

Applications

Fibremod™ GD577SF is intended for following applications:

Structural parts

Cross beams

Front end carriers

Clutch and gas pedals

and other structurally demanding applications in the automotive industry

Physical properties

Property	Typical value *	Unit	Test method
Density	1350	kg/m ³	ISO 1183-1
Tensile modulus (1 mm/min)	13500	MPa	ISO 527-2
Tensile strength (50 mm/min)	160	MPa	ISO 527-2
Charpy impact strength, notched (23 °C)	11	kJ/m ²	ISO 179-1/1eA
Charpy impact strength, unnotched (23 °C)	55	kJ/m ²	ISO 179-1/1eU
Heat deflection temperature A (1.80 MPa)	157	°C	ISO 75-2

* 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. Specimens are produced within the ISO standards but with special moulding conditions (injection moulding runner and cavity design, melt temperature and dynamic pressure) required for highly filled PP-SGF materials and used generally in part production

Other properties

Property	Typical value *	Unit	Test method
Spiral flow length (230 °C, 40 °C, 600 bar)	470	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 2h at 80°C.

Following 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 - 60 MPa
Mould temperature	30 - 60 °C
Screw speed ¹	
Flow front speed	100 - 200 mm/s

¹Low to medium

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

Packaging and storage

Fibremod™ GD577SF 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

North America: grade available under the name Fibremod GD577SFU

South America: grade available under the name Fibremod GD577SFB

Asia: grade available at Borouge under the name Fibremod GD577SFC

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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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.

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