

Polypropylene

SH950MO

Polypropylene Random/Heterophasic Copolymer

Description

SH950MO is a random heterophasic copolymer intended for injection moulding.

This grade yields high transparency and deep freeze impact resistance combined with excellent flow properties. The material is nucleated with Borealis Nucleation Technology (BNT) which, in combination with excellent stiffness and good flow properties, creates a high potential for wall-thickness reduction. This grade also contains antistatic and demoulding additives which, together with enhanced nucleation, create a high potential for cycle time reduction. Products moulded with SH950MO have an excellent balance of see-through transparency and deep freeze impact resistance. In addition, components have good gloss, very low stress whitening and excellent taste and odour properties.

Cas No. 9010-79-1 9002-88-4

Typical characteristics

SH950MO can be described with following typical characteristics:

Good flow	Improved gloss and excellent transparency
Good impact strength	Very low influence on taste & odour

Applications

SH950MO is intended for following applications:

Boxes and crates	Deep freeze boxes for food storage
Caps	High gloss closures
Crates	Ice cream containers

Physical properties

Property	Typical value *	Unit	Test method
Density	905	kg/m ³	ISO 1183-1
Melt flow rate (230 °C/2.16 kg)	40	g/10min	ISO 1133-1
Flexural modulus	950	MPa	ISO 178
Charpy impact strength, notched (-20 °C)	3	kJ/m ²	ISO 179-1/1eA
Charpy impact strength, notched (23 °C)	8	kJ/m ²	ISO 179-1/1eA
Tensile modulus (1 mm/min)	1050	MPa	ISO 527-2
Tensile strain at yield (50 mm/min)	10	%	ISO 527-2
Tensile stress at yield (50 mm/min)	20	MPa	ISO 527-2
Heat deflection temperature B (0.45 MPa) ¹	75	°C	ISO 75-2

* Data should not be used for specification work

¹ Measured on injection moulded specimens acc. to ISO 1873-2

Processing techniques

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

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Processing setting	Typical value/range
Melt temperature	200 - 250 °C
Holding pressure ²	200 - 500 bar
Mould temperature	15 - 40 °C
Injection speed	High

² Minimum to avoid sink marks.

Shrinkage 1 - 2 %, depending on wall thickness and moulding parameters.

Packaging and storage

SH950MO 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.

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.

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.