



Polyethylene

MG9647S

Description

MG9647S is a natural high-density polyethylene with a narrow molecular weight distribution, which is produced in a low-pressure gas-phase process. This grade is designed for the injection moulding of articles which require good rigidity, good flow properties and high impact strength. It also contains UV-stabilizer, which makes this grade especially suited for outdoor applications.

Applications

Crates and boxes
Snow pulcas

Transport packaging

Special features

Good impact strength
Good flow

UV stabilised

Physical Properties

Property	Typical Value	Test Method
Data should not be used for specification work		
Density	964 kg/m ³	ISO 1183
Melt Flow Rate (190 °C/2,16 kg)	8 g/10min	ISO 1133
Tensile Modulus (1 mm/min) ¹	1.200 MPa	ISO 527-2
Tensile Strain at Yield (50 mm/min) ²	8 %	ISO 527-2
Tensile Stress at Yield (50 mm/min) ²	27 MPa	ISO 527-2
Heat Deflection Temperature (0,45 MPa) ³	77 °C	ISO 75-2
Charpy Impact Strength, notched (23 °C)	7 kJ/m ²	ISO 179/1eA
Charpy Impact Strength, notched (-20 °C)	6 kJ/m ²	ISO 179/1eA
Hardness, Shore D	63	ISO 868

¹ Measured on compression moulded specimens acc. to ISO 1872-2

² Measured on injection moulded specimens acc. to ISO 1872-2

³ Measured on injection moulded specimens acc. to ISO 1873-2

Processing Techniques

Following parameters should be used as guidelines:

Injection Moulding

Melt temperature
Holding pressure
Mould temperature
Injection speed

210 - 275 °C
As low as possible
10 - 40 °C
As high as possible.

Minimum to avoid sink marks.

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

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MG9647S 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.

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 safety, recovery and disposal of the product. For more information, contact your Borealis representative.

Related Documents

The following related documents are available on request, and represent various aspects on the usability, safety, recovery and disposal of the product.

"Safety data sheet" / "Product safety information sheet"
Statement on compliance to food contact regulations

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MG9647S**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.

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