



# 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 <sup>3</sup>	ISO 1183
Melt Flow Rate (190 °C/2,16 kg)	8 g/10min	ISO 1133
Tensile Modulus (1 mm/min) <sup>1</sup>	1.200 MPa	ISO 527-2
Tensile Strain at Yield (50 mm/min) <sup>2</sup>	8 %	ISO 527-2
Tensile Stress at Yield (50 mm/min) <sup>2</sup>	27 MPa	ISO 527-2
Heat Deflection Temperature (0,45 MPa) <sup>3</sup>	77 °C	ISO 75-2
Charpy Impact Strength, notched (23 °C)	7 kJ/m <sup>2</sup>	ISO 179/1eA
Charpy Impact Strength, notched (-20 °C)	6 kJ/m <sup>2</sup>	ISO 179/1eA
Hardness, Shore D	63	ISO 868

<sup>1</sup> Measured on compression moulded specimens acc. to ISO 1872-2

<sup>2</sup> Measured on injection moulded specimens acc. to ISO 1872-2

<sup>3</sup> Measured on injection moulded specimens acc. to ISO 1873-2

### Processing Techniques

Following parameters should be used as guidelines:

#### Injection Moulding

Melt temperature	210 - 275 °C	
Holding pressure	As low as possible	Minimum to avoid sink marks.
Mould temperature	10 - 40 °C	
Injection speed	As high as possible.	

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

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## Storage

**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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**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.**

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