

## Polypropylene

# MG455AI

### Polypropylene Compound, Mineral Filled

#### Description

**MG455AI** is a 40% mineral filled polypropylene compound intended for injection moulding. This material has excellent balanced mechanical properties and high melt flow rate.

#### Applications

**MG455AI** has been developed especially for the car industry to be used in non-visible automotive interior parts with low emission requirements.

Air ducts  
Automotive under the bonnet parts

Air filters  
Air conditioning parts

#### Special Features

Low volatiles  
Reduced fogging

Easy processing

#### Physical Properties

Property	Typical Value	Test Method
Data should not be used for specification work		
Density	1230 kg/m <sup>3</sup>	ISO 1183
Melt Flow Rate (230 °C/2,16 kg)	22 g/10min	ISO 1133
Flexural Modulus (2 mm/min)	4,400 MPa	ISO 178
Tensile Strength (50 mm/min)	32 MPa	ISO 527-2
Heat Deflection Temperature B (0,45 MPa)	125 °C	ISO 75-2
Charpy Impact Strength, notched (23 °C)	1,8 kJ/m <sup>2</sup>	ISO 179/1eA
Charpy Impact Strength, unnotched (23 °C)	16 kJ/m <sup>2</sup>	ISO 179/1eU
Charpy Impact Strength, unnotched (-20 °C)	10 kJ/m <sup>2</sup>	ISO 179/1eU

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

#### Application Related Tests

Property	Typical Value	Test Method
Data should not be used for specification work		
Fogging (100 °C,16 h)	< 2 mg	DIN 75201
Emission	< 50 µgC/g	VDA 277

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### Processing Techniques

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

#### Injection Moulding

To avoid residual humidity from transport or storage, the material should be pre-dried approximately 2h at 80°C. This product is easy to process with standard injection moulding machines. Following moulding parameters should be used as guidelines:

Feeding temperature	40 - 80 °C
Mass temperature	210 - 250 °C
Back pressure	Low to medium
Holding pressure	30 - 60 MPa
Mould temperature	30 - 50 °C
Screw speed	Low to medium
Flow front speed	100 - 200 mm/s

### Storage

**MG455AI** 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

Please see our "Safety data sheet" / "Product safety information sheet" for details on various aspects of safety of the product. For more information, contact your Borealis representative.

### 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 recovery and disposal of the product.

### Regional Availability

Europe

For information on regional availability please contact Borealis Sales Representative.

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### Issuer:

Marketing Automotive / Georg Grestenberger  
Product Management / Michael Otte

### Disclaimer

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