



# Polypropylene MD441U

Polypropylene Compound, Mineral Filled

## Description

**MD441U** is a mineral filled polypropylene compound intended for injection moulding.

This material has excellent balanced mechanical properties and a medium melt flow rate.

## Applications

**MD441U** is designed for:

Air conditioning parts  
Heater housings

Under the bonnet components

## Special Features

Long term high heat stabilised  
Excellent dimensional stability

UL registered under File E108112  
Low shrinkage

## Physical Properties

Property	Typical Value	Test Method
Data should not be used for specification work		
Density	1220 kg/m <sup>3</sup>	ISO 1183
Melt Flow Rate (230 °C/2,16 kg)	6 g/10min	ISO 1133
Flexural Modulus (2 mm/min)	4.700 MPa	ISO 178
Tensile Strength (50 mm/min)	32 MPa	ISO 527-2
Heat Deflection Temperature B (0,45 MPa)	100 °C	ISO 75-2
Charpy Impact Strength, notched (23 °C)	2,4 kJ/m <sup>2</sup>	ISO 179/1eA
Charpy Impact Strength, notched (-20 °C)	1,2 kJ/m <sup>2</sup>	ISO 179/1eA

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

## Processing Techniques

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

### Injection Moulding

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

Feeding temperature	40 - 80 °C
Mass temperature	220 - 260 °C
Back pressure	Low to medium
Holding pressure	30 - 60 MPa



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Mould temperature  
Screw speed  
Flow front speed

30 - 50 °C  
Low to medium  
100 - 200 mm/s

## Storage

**MD441U** 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.

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.