# PRODUCT DATA SHEET

## Polypropylene

# MD231U

### Polypropylene Mineral Filled Compound

## Description

MD231U is a 20% mineral filled polypropylene compound intended for injection molding. This material has excellently balanced mechanical properties and a medium melt flow rate.

## Typical characteristics

Long term high heat stabilized

High dimensional stability

UL registered under File E108112

Low shrinkage

## Applications

MD231U is intended for following applications:

Air ducts

Air conditioning parts

Air filters

Automotive under the bonnet parts

## Physical properties

| Property | Typical value * | Unit | Test method |
|---|---|---|---|
| Density | 1050 | kg/m³ | ISO 1183-1 |
| Melt flow rate (230 °C/2.16 kg) | 6 | g/10min | ISO 1133 |
| Flexural modulus (2 mm/min) | 3200 | MPa | ISO 178 |
| Charpy impact strength, notched (23 °C) | 3 | kJ/m² | ISO 179-1/1eA |
| Heat deflection temperature B (0.45 MPa) | 125 | °C | ISO 75-2 |
| Tensile strength (50 mm/min) | 35 | MPa | ISO 527-2 |

* Data should not be used for specification work

## Other properties

| Property | Typical value * | Unit | Test method |
|---|---|---|---|
| Fogging (100 °C,16 h) | < 2 | mg | DIN 75201 |
| Total emission (headspace) | < 50 | µg C/g | VDA 277 |

* Data should not be used for specification work

## Processing techniques

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:

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| Processing setting | Typical value/range |
|---|---|
| Feeding temperature | 40-80 °C |
| Mass temperature | 220-260 °C |
| Holding pressure | 30 - 60 MPa |
| Mould temperature | 30 - 50 °C |
| Screw speed | low to medium |
| Flow front speed | 100-200 mm/s |

The actual conditions will depend on the type of equipment used

## Packaging and storage

MD231U 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.

## Regional Availability

North America: Grade available under the name MD231UU

For information on regional availability please contact Borealis Sales Representative.

### Disclaimer



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