



Polypropylene

RC101

Polypropylene Compound, Mineral Filled

Description

RC101 is a 20% mineral filled polypropylene compound intended for injection moulding.

Applications

RC101 has been developed especially for the car industry to be used in automotive interior parts.

Interior trims

Automotive interior applications

Special features

Very good combination of impact, stiffness and surface aesthetics

Physical Properties

| Property | Typical Value | Test Method |
|---|------------------------|-------------|
| Data should not be used for specification work | | |
| Density | 1050 kg/m ³ | ISO 1183 |
| Melt Flow Rate (230 °C/2,16 kg) | 23 g/10min | ISO 1133 |
| Flexural Modulus (2 mm/min) | 3.000 MPa | ISO 178 |
| Flexural Strength | 50 MPa | ISO 178 |
| Tensile Modulus (1 mm/min) (23 °C) | 3.200 MPa | ISO 527-2 |
| Tensile Strain at Yield (50 mm/min) (23 °C) | 7 % | ISO 527-2 |
| Tensile Stress at Yield (50 mm/min) (23 °C) | 33 MPa | ISO 527-2 |
| Heat Deflection Temperature Edgewise (0,45 MPa) | 130 °C | ISO 75-2 |
| Heat Deflection Temperature Edgewise (1,80 MPa) | 70 °C | ISO 75-2 |
| Vicat softening temperature B50, | 95 °C | ISO 306 |
| Charpy Impact Strength, notched (23 °C) | 3 kJ/m ² | ISO 179 |
| Izod Impact Strength, notched (23 °C) | 4 kJ/m ² | ISO 180/1A |
| Hardness, Rockwell (R-scale) | 102 | ISO 2039-2 |

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

Combustion Properties

| Property | Typical Value | Test Method |
|--|---------------|-------------|
| Data should not be used for specification work | | |
| Flammability at thickness 1 mm | Max100 mm/min | ISO 3795 |

Processing Techniques

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

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RC101 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 |
| Holding pressure | 30 - 60 MPa |
| Back pressure | Low to medium |
| Mould temperature | 20 - 40 °C |
| Screw speed | Low to medium |
| Flow front speed | 100 - 200 mm/s |

Storage

RC101 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, recovery and disposal 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.

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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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