



Polypropylene

HK030U

Polypropylene Compound

Description

HK030U is a special low viscosity polypropylene compound developed to fit the production of PP-GF composites in the direct LFT compression and injection moulding process as well as in combination with LGF concentrates on the injection moulding process.

The product is available in standard black 9502.

Applications

HK030U has been developed especially for demanding applications in the automotive industry.

Front end carriers
Noise shields

Under body shieldings

Special features

Long term high heat stabilised

Physical Properties

Property	Typical Value	Test Method
Data should not be used for specification work		
Density	905 kg/m ³	ISO 1183
Melt Flow Rate (230 °C/2,16 kg)	350 g/10min	ISO 1133
Flexural Modulus (2 mm/min)	1.450 MPa	ISO 178
Flexural Strength	43 MPa	ISO 178
Tensile Modulus (1 mm/min)	1.550 MPa	ISO 527-2
Tensile Strain at Yield (50 mm/min)	5 %	ISO 527-2
Tensile Stress at Yield (50 mm/min)	33 MPa	ISO 527-2
Heat Deflection Temperature B (0,45 MPa)	91 °C	ISO 75-2
Heat Deflection Temperature A (1,80 MPa)	53 °C	ISO 75-2
Vicat softening temperature A, (10 N)	151 °C	ISO 306
Vicat softening temperature B, (50 N)	89 °C	ISO 306
Coefficient of Thermal Expansion (-30 °C/80 °C)	106 µm/mK	Borealis Method
Charpy Impact Strength, notched (23 °C)	1,0 kJ/m ²	ISO 179/1eA
Charpy Impact Strength, notched (-20 °C)	0,9 kJ/m ²	ISO 179/1eA
Charpy Impact Strength, notched (-30 °C)	0,8 kJ/m ²	ISO 179/1eA
Charpy Impact Strength, unnotched (23 °C)	45 kJ/m ²	ISO 179/1eU
Charpy Impact Strength, unnotched (-20 °C)	11 kJ/m ²	ISO 179/1eU
Izod Impact Strength, notched (23 °C)	1,8 kJ/m ²	ISO 180/1A
Izod Impact Strength, notched (-20 °C)	1,6 kJ/m ²	ISO 180/1A
Hardness, Ball Indentation	72 MPa	ISO 2039

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

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Application Related and other Tests

Property	Typical Value	Test Method
Data should not be used for specification work		
Mould average Shrinkage ¹	1,6 %	Borealis Method
Melt energy	105 kJ/kg	DSC ISO 11357

¹ VALUES MAY ONLY BE USED AS INDICATION, AND SHOULD NOT BE USED DIRECTLY IN MOULD DESIGN WITHOUT PRIOR VALIDATION

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 3h at 80°C. Following parameters should be used as guidelines:

Feeding temperature	40 - 80 °C
Mass temperature	200 - 260 °C
Back pressure	Low to medium
Holding pressure	30 - 60 bar
Mould temperature	30 - 50 °C
Screw speed	Low to medium
Flow front speed	100 - 200 m/min

Storage

HK030U 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.

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