Polypropylene

MD494WG

Polypropylene Compound, Mineral Filled

Description

MD494WG is a 40% mineral filled polypropylene compound intended for injection moulding.

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

Applications

MD494WG has been developed especially for applications like:

Washing machine parts
Household applications
Dishwashers components

Special features

Good long term heat stability
Detergent resistant
Good dimensional stability
Good processability

Physical Properties

Property	Typical Value Data should not be used for specification work	Test Method
Density	1270 kg/m3	ISO 1183
Melt Flow Rate (230 °C/2,16 kg)	8 g/10min	ISO 1133
Flexural Modulus (2 mm/min)	2.400 MPa	ISO 178
Tensile Modulus (1 mm/min)	2.500 MPa	ISO 527-2
Tensile Stress at Yield (50 mm/min)	23 MPa	ISO 527-2
Heat Deflection Temperature B (0,45 MPa)	105 °C	ISO 75-2
Heat Deflection Temperature A (1,80 MPa)	61 °C	ISO 75-2
Vicat softening temperature (10 N)	157 °C	ISO 306
Vicat softening temperature (50 N)	95 °C	ISO 306
Charpy Impact Strength, notched (23 °C)	2,1 kJ/m²	ISO 179/1eA
Charpy Impact Strength, notched (-20 °C)	1,3 kJ/m²	ISO 179/1eA
Charpy Impact Strength, unnotched (23 °C)	50 kJ/m²	ISO 179/1eU
Charpy Impact Strength, unnotched (-20 °C)	20 kJ/m²	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 Data should not be used for specification work	Test Method
Average process Shrinkage (in flow, 150x80x2 mm) [1]	1 %	Borealis Method
Average process Shrinkage (cross flow, 150x80x2 mm) [1]	1 %	Borealis Method

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

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

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	220 - 260 °C
Holding pressure	30 - 60 MPa
Back pressure	Low to medium
Mould temperature	30 - 50 °C
Screw speed	Low to medium
Flow front speed	100 - 200 mm/s

Storage
MD494WG should be stored in dry conditions at temperatures below 50°C and protected from UV-light. Improper storage can initiate degradation. 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 a dangerous preparation. 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.

Related Documents
The following related documents are available on request, and represent various aspects on the usability, safety, recovery and disposal of the product.

"Safety data sheet" / "Product safety information sheet"
Statement on chemicals, regulations and standards
Recovery and disposal of polyolefins
Information on emissions from processing and fires

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