Polypropylene

RG460MO

Polypropylene Random Copolymer for Injection Moulding

Description

RG460MO is a specially modified highly transparent polypropylene random copolymer with high melt flow intended for injection moulding. **RG460MO** is specially formulated for high speed injection moulding and contains nucleating and mould release additives allowing high demoulding temperature as well as reduced cooling time.

Products moulded from **RG460MO** have excellent transparency, relatively good impact strength in ambient temperature, good organoleptical properties, and good demoulding properties. **RG460MO** is a CR grade with narrow molecular weight distribution giving low warpage and distortion.

Applications

RG460MO is developed for transparent injection moulded houseware products. Especially suitable for applications with long flow length and thin walls where good impact strength is critical.

Typical applications are:

- Houseware containers
- Square containers and boxes
- Closures and lids
- Pails and cups

Physical Properties**

		Typical Value*	Unit	Test Method
Density		906	kg/m^3	ISO 1183
Melt Flow Rate	(230ºC/2.16kg)	30	g/10 min	ISO 1133
Tensile Stress at yield	(50 mm/min)	27	MPa	ISO 527-2
Tensile Strain at Yield	(50 mm/min)	13	%	ISO 527-2
Tensile Modulus	(1 mm/min)	1050	MPa	ISO 527-2
Charpy Impact Strength, notched	(+23ºC)	5.5	kJ/m^2	ISO 179/1eA
Hardness, Rockwell		80	R-scale	ISO 2039-2
Heat Deflection Temperature	(0.45 N/mm^2)	75	ºC	ISO 75-2

* Data should not be used for specification work
** Values determined on injection moulded specimens acc. to ISO 1873-2 (97), based on 7 days conditioning time.

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Processing Guidelines

The grade can be processed on standard injection moulding machines. Following moulding parameters should be used as guidelines.

Melt temperature	210 – 260ºC
Injection speed	High
Holding pressure	Minimum required to avoid sink marks (typical values are 200 - 500 bars)
Mould temperature	15 – 40ºC
Shrinkage	1 - 2%, depending on wall thickness and moulding parameters.

Storage and Handling

The product should be stored in dry conditions at temperatures below 50ºC 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 the product.

Safety

RG460MO is not classified as dangerous preparation.

Dust and fines from the product carry a risk of dust explosion. All equipment should be properly earthed. Inhalation of dust should be avoided as it may cause irritation of the respiratory system.
Small amounts of fumes are generated during processing of the product. Proper ventilation is therefore required.

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.

A Safety Data Sheet is available on request. Please contact your Borealis representative for more details on various aspects of safety, recovery and disposal of the product.

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Related Documents

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

Recovery and disposal of Polyolefins
Information on Emissions from Processing and Fires
Safety Data Sheet, SDS
Environmental Fact Sheet

Liability statements on:

- Compliance to Food Contact Regulations

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