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PRODUCT DATA SHEET

Polypropylene

BE50

Polypropylene Homopolymer

Description

BE50 is a high molecular weight, low melt flow rate polypropylene homopolymer characterised by high stiffness, high heat distortion temperature and high resistance to thermal ageing.

Applications

BE50 is intended for following applications:

Non-pressure pipe systems

Industrial applications

Sheets and profiles

BE50 is recommended for non-pressure pipes and fittings, extruder sheets, solid rods, filter plates and other extrusion applications.

Physical properties

Property	Typical value *	Unit	Test method
Density	905	kg/m³	ISO 1183-1
Melt flow rate (230 °C/2.16 kg)	0.30	g/10min	ISO 1133-1
Vicat softening temperature B50 (50 N)	95	°C	ISO 306
Tensile modulus	1700	MPa	ISO 527-2
Tensile stress at yield (50 mm/min)	36	MPa	ISO 527-2
Tensile strain at yield (50 mm/min)	10	%	ISO 527-2
Charpy impact strength, notched (23 °C)	9	kJ/m²	ISO 179-1/1eA
Charpy impact strength, notched (-20 °C)	2	kJ/m²	ISO 179-1/1eA

* Data should not be used for specification work

Processing techniques

The actual conditions will depend on the size and wall thickness of the pipe produced. Specific recommendations for processing conditions can be determined only when the application and type of equipment are known. Please contact your local Borealis representative for such particulars.

Processing setting	Typical value/range
Cylinder temperature	190 - 230 °C
Head temperature	200 - 230 °C
Die temperature	200 - 230 °C
Melt temperature	200 - 230 °C

Packaging and storage

BE50 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.

BOREALIS

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Product compliance documents

Latest versions of product safety information sheets (PSIS), product safety data sheets (SDS) and other product liability documents are available on 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.

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.
To the best of our knowledge, the information contained herein is accurate and reliable as of the date of publication; however we do not assume any liability whatsoever for the accuracy and completeness of such information.
Borealis makes no warranties which extend beyond the description contained herein. Nothing herein shall constitute any warranty of merchantability or fitness for a particular purpose.
It is the customer's responsibility to inspect and test our products in order to satisfy itself as to the suitability of the products for the customer's particular purpose. The customer is responsible for the appropriate, safe and legal use, processing and handling of our products.
No liability can be accepted in respect of the use of any Borealis product in conjunction with any other products and/or materials. The information contained herein relates exclusively to our products when not used in conjunction with any other material unless as specifically provided for in the test methods stated above.

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