



# Polypropylene RA7050

## Description

**RA7050** is a low melt flow rate, grey in colour, **PP-RCT** (PolyPropylene-Random Crystallinity Temperature) material.

**RA7050** has a special crystallinity brought by a special beta-nucleation that exhibits an improved pressure resistance, especially at elevated temperatures. The product data sheet does not release customers from their liability to check that delivered material is fit for purpose and application.

**RA7050** is ready compounded for maximum quality control. The colour of **RA7050** is grey similar (but not equivalent) to RAL 7042.

## Applications

**RA7050** is in general intended to be used in applications for plumbing and heating, such as in-house hot and cold water pipes and fittings, floor and wall heating systems and radiator connections. The product data sheet does not release customers from their liability to check that delivered material is fit for purpose and application.

## Physical Properties

Data should not be used for specification work. Borealis does not assume any liability whatsoever for accuracy and completeness of such information.

Property	Typical Value	Test Method
	Data should not be used for specification work	
Melt Flow Rate (230 °C/2,16 kg)	0,25 g/10min	ISO 1133
Tensile Modulus	850 MPa	ISO 527-2
Tensile Strain at Yield	10 %	ISO 527-2
Tensile Stress at Yield	25 MPa	ISO 527-2
Charpy Impact Strength, notched (23 °C)	40 kJ/m <sup>2</sup>	ISO 179-1
Charpy Impact Strength, notched (0 °C)	4 kJ/m <sup>2</sup>	ISO 179-1



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## Processing Techniques

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

In order to avoid the manufacture of pipes that show a brittle behaviour at the freezing temperature the following recommendations recommended to be followed. It is essential that the melt temperature of the material leaving the die head lies between 220 - 230°C. This is achieved by setting the extruder cylinder temperatures in the range of 215 - 230°C and the tool temperatures in the range of 220 - 230°C. The specified melt temperature range provides a homogeneously and thoroughly molten polymer, a prerequisite to achieve an optimum crystal structure. Furthermore, the defined melt temperature level results in a favourable heat transfer rate for the development of the right form and degree of crystallinity. In addition to the appropriate extruder settings, the impact performance can further be enhanced by an arrangement of cooling tanks that allow for an in-line annealing or by a post-extrusion annealing process.

The above mentioned processing technique and set-up depends, however, on the type of equipment used. More 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. The product data sheet does not release customers from their liability to check that delivered material is fit for purpose and application.

## Storage

**RA7050** 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

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.

More information on recovery and disposal is found in our "Safety data sheet" / "Product safety information sheet". Please contact your Borealis representative for more details on recycling.



**Polypropylene**  
**RA7050**

**Issuer:**

Product Management / Petar Doshev  
Marketing Pipe / Thierry Pezard

**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.