



# Polypropylene

# BHC5012C

Polypropylene Copolymer

## Description

**BHC5012C** is a polypropylene copolymer intended for injection moulding, extrusion and blow moulding.

This material has excellent balanced mechanical properties and is easy to process.

## Applications

**BHC5012C** has been developed especially for applications like:

Heater housings  
Break fluid reservoirs

## Special features

Copper (Cu) stabilised

## Physical Properties

| Property                                   | Typical Value                                  | Test Method |
|--|--|-------------|
|  | Data should not be used for specification work |             |
| Density                                    | 905 kg/m <sup>3</sup>                          | ISO 1183    |
| Melt Flow Rate (230 °C/2,16 kg)            | 0,3 g/10min                                    | ISO 1133    |
| Flexural Modulus (2 mm/min)                | 1.350 MPa                                      | ISO 178     |
| Flexural Strength                          | 35 MPa   | ISO 178     |
| Tensile Modulus (1 mm/min)                 | 1.150 MPa                                      | ISO 527-2   |
| Tensile Strain at Yield (50 mm/min)        | 11 %   | ISO 527-2   |
| Tensile Stress at Yield (50 mm/min)        | 27 MPa   | ISO 527-2   |
| Heat Deflection Temperature A (1,80 MPa)   | 50 °C  | ISO 75-2    |
| Vicat softening temperature B, (50 N)      | 65 °C  | ISO 306     |
| Charpy Impact Strength, notched (23 °C)    | 75 kJ/m <sup>2</sup>                           | ISO 179/1eA |
| Charpy Impact Strength, notched (-20 °C)   | 4,5 kJ/m <sup>2</sup>                          | ISO 179/1eA |
| Charpy Impact Strength, notched (-30 °C)   | 3,8 kJ/m <sup>2</sup>                          | ISO 179/1eA |
| Charpy Impact Strength, unnotched (23 °C)  | No break                                       | ISO 179/1eU |
| Charpy Impact Strength, unnotched (-20 °C) | No break                                       | ISO 179/1eU |
| Izod Impact Strength, notched (23 °C)      | 55 kJ/m <sup>2</sup>                           | ISO 180/1A  |
| Izod Impact Strength, notched (-20 °C)     | 5,5 kJ/m <sup>2</sup>                          | ISO 180/1A  |

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

## Application Related and other Tests

| Property                             | Typical Value                                  | Test Method     |
|--------------------------------------|--|-----------------|
|                                      | Data should not be used for specification work |                 |
| Emission                             | 30 µgC/g                                       | VDA 277         |
| Mould average Shrinkage <sup>1</sup> | 1,9 %  | Borealis Method |



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Melt energy

86,8 kJ/kg

DSC ISO 11357

<sup>1</sup> 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 2h at 80°C. Following moulding parameters should be used as guidelines:

|                     |                |
|---------------------|----------------|
| Feeding temperature | 40 - 80 °C     |
| Mass temperature    | 220 - 260 °C   |
| Back pressure       | Low to medium  |
| Holding pressure    | 30 - 60 MPa    |
| Mould temperature   | 30 - 50 °C     |
| Screw speed         | Low to medium  |
| Flow front speed    | 100 - 200 mm/s |

### Storage

**BHC5012C** 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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**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.

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