

Polypropylene

Borcycle™ UJ599MO-71

Recycled PP Compound

Preliminary



Accelerating Action
on Circularity

Description

Borcycle™ UJ599MO-71 is an integrated recycled PP solution with 55% post-consumer recyclate / virgin block copo PP, characterised by a high melt flow rate, based on Borstar Nucleation Technology that allows cycle time reduction.

The post-consumer recyclate is made from post-consumer plastic waste which is pre-sorted, sorted, shredded, washed, dried, extruded (including melt filtration, at a level of 110 microns) and pelletized, resulting in a circular polypropylene grade with minimum PP content above 95% (measured via DSC). The material is sold in pellet form.

Borcycle™ UJ599MO-71 is designed for high-speed injection moulding and contains nucleating and demoulding additives. Products originating from this grade have excellent balance of stiffness and impact strength at ambient and cold temperature and good demoulding properties.

Borcycle™ UJ599MO-71 is intended for injection moulding. “-71” refers to the colour version of the product, a visual indication of “light colour”. While recyclates may exhibit slight color variations between batches, our innovative integration of virgin PP into the ready-made PP compound ensures an optimised colour consistency.

The product is not intended for use in beverages, drinking water contact, food contact, medical, pharmaceutical or healthcare applications.

UG21MO-74 is part of EuCertPlast according to European Standard EN15343:2007, and compliant with EN 15345:2008 and UNI 10667-3.

Available colours

-71 refers to colour indication “light colour” version

-90 refers to colour indication “white” version

-99 refers to colour indication “natural” version

Cas No. 9010-79-1

Applications

Borcycle™ UJ599MO-71 is intended for following applications:

Caps and closures for non-food applications

Injection-moulded non-food applications

Special Features

Good stiffness and impact strength balance

Good demoulding properties

Good flow behaviour

Physical properties

Property	Typical value *	Unit	Test method
Density	910	kg/m ³	ISO 1183-1
Melt flow rate (230 °C/2.16 kg)	70.0	g/10min	ISO 1133-1
Tensile modulus (1 mm/min)	1400	MPa	ISO 527-2
Tensile strain at yield (50 mm/min)	4.5	%	ISO 527-2
Tensile stress at yield (50 mm/min)	25	MPa	ISO 527-2
Charpy impact strength, notched (23 °C)	5.5	kJ/m ²	ISO 179-1/1eA

* Data should not be used for specification work

Processing techniques

This product is easy to process with standard injection moulding machines.

Borcycle™ is a trademark of the Borealis Group



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Processing setting	Typical value/range
Melt temperature	210 - 260 °C
Holding pressure	200 - 500 bar
Mould temperature	30 - 40 °C

Shrinkage 1 - 2 %, depending on wall thickness and moulding parameters.

Packaging and storage

Borcycle™ UJ599MO-71 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.

Product compliance documents

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

Regional Availability

Europe

For information on regional availability please contact Borealis Sales Representative.

Disclaimer

Recycled plastics are subject to material inconsistencies. Borealis makes no warranties which extend beyond the description contained herein and to the best of our knowledge, the information is accurate and reliable as of the date of publication. Because of the multitude of possible influences during the use and application of our products, the information included does not release customers and users from the obligation to examine and test them carefully. Please note that 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 as Borealis do not know the origin of the product. 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. The product(s) mentioned herein are not intended to be used for food contact, drinking water contact, medical, pharmaceutical or healthcare applications and we do not support their use for such applications. Otherwise, our General Terms and Conditions of Sale apply.