

Post-consumer recycle

Borcycle" PE U0013



Accelerating Action on Circularity

Description

Borcycle" PE U0013 is an integrated recycled LLDPE/virgin LLDPE solution with 85% post-consumer recycle. The post-consumer recycle is made from post-consumer waste including mainly commercial waste. This material is an ideal LLDPE used where sustainability and circularity matter. Borcycle" PE U0013 is a transparent, low gel Linear Low Density Polyethylene recycle (rLLDPE) supplied in pellet form for high-end film applications. It is not intended for use in food contact, potable water contact, pharmaceutical and medical applications. Borcycle" PE U0013 is part of the RecyClass certificate. Due to the nature of recycles, some variation in color can be observed between batches.

Typical characteristics

Borcycle" PE U0013 can be described with following typical characteristics:

- Low gel level Available in homogenized 24-ton truckloads
- Transparent/natural color Filtration: 60 µm
- Low odour

Applications

Borcycle" PE U0013 is intended for following applications:

- High end non-food blown film
- High end collation non-food stretch or shrink packaging, lamination film and single web flexible packaging
- Non-food contact consumer packaging where transparency and toughness are key parameters

Physical properties

Property	Typical value *	Unit	Test method
Density	0.918	g/cm ³	ISO 1183-1
MFR 190/2,16	2	g/10 min	ISO 1133-1
Bulk density	475	g/l	ISO 60
Dart drop	165	g	ASTM D1709
Tear resistance (Elmendorf) MD	75	N/mm	ISO 6383/2
Tear resistance (Elmendorf) TD	115	N/mm	ISO 6383/2

* Data should not be used for specification work

Film properties measured on 40 µm thick blown film produced on 30 mm Collin extruder L/D = 30, die diameter 60 mm, blow up ratio (BUR) = 2.5:1, frost line height (FLH) = 2D.

Processing techniques

Borcycle" PE U0013 is easily processed on conventional extruders.

Following parameters should be used as guidelines:

Melt temperature 160 - 190 °C

Due to differences in extrusion machine design the optimum temperature adjustments are individual and should be sought for each production line.

Borcycle" is a trademark of the Borealis Group

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Packaging and storage

Borcycle" PE U0013 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 odor generation and color changes and can have negative effects on the physical properties of this product. The shelf life is a maximum of one year after production. It can be extended after selected material properties are being retested to meet the product specifications. It is recommended to measure the moisture after longer storage periods prior to processing.

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.

Disclaimer

Recycled plastics are subject to material inconsistencies. mtm/Ecoplast 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 mtm/Ecoplast do not know the origin of the product. Where necessary, the customer is recommended to obtain a feedstock release from the customer. 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 mtm/Ecoplast 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.