PRODUCT DATA SHEET

Polyethylene

Recleo™ PE S0003

Post-Consumer Recyclate

Description

Recleo™ PE S0003 is a transparent low gel low density polyethylene post-consumer recyclate (rLDPE) mainly produced from commercial waste. Recyclass certificate is available on the webpage and upon request. Due to the nature of our recycling process, some variation can be observed between batches.

Cas No. 9002-88-4

Typical characteristics

Recleo™ PE S0003 can be described with following typical characteristics:

PCR content: 100%
Color: transparent
Filtration: 100 µm
Low gel content
Reduced odor
Good printability

Applications

Recleo™ PE S0003 is intended for following applications:

- Non food contact consumer packaging where transparency and toughness are key parameters
- High end collation shrink packaging
- Non-food contact primary packaging

Note: Minor quantity of BorShape™ LLDPE significantly boosts mechanical performances of PE S0003 helping convertors, brand owners and retailers meeting their sustainability goals without compromising key mechanical properties for similar packaging performance.

Physical properties

Property	Typical value *	Unit	Test method
Density	0.925	g/cm³	ISO 1183
Melt flow rate (190 °C/2.16 kg)	0.5	g/10 min	ISO 1133-1
Bulk density	470	g/l	ISO 60
Moisture content [1]	≤ 0.1	%	

* Data should not be used for specification work

[1] *internal method*

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Recleo™ PE S0003

Film properties

Property	Typical value *	Unit	Test method
Tensile Modulus MD	230	MPa	ISO 527-3
Tensile Modulus TD	270	MPa	ISO 527-3
Tensile strength MD	19	MPa	ISO 527-3
Tensile strength TD	20	MPa	ISO 527-3
Tensile strain at break MD	360	%	ISO 527-3
Tensile strain at break TD	570	%	ISO 527-3
Tear resistance (Elmendorf) MD	2.0	N	ISO 6383-2
Tear resistance (Elmendorf) TD	4.6	N	ISO 6383-2
Dart drop	110	g	ISO 7765-1
Haze	25	%	ASTM D1003
Gloss 45°	28	GU	ASTM D2457

* Data should not be used for specification work

Processing techniques

Recleo PE S0003 is easily processed on conventional extruders.
Following parameters should be used as guideline:

Processing setting	Typical value/range
Melt temperature	160 - 190 °C

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

Packaging and storage

PE S0003 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 website www.borealisgroup.com.

Disclaimer

Recycled plastics are subject to material inconsistencies. mtm/Ecoplast/Integra 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/Integra 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/Integra 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.

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