

Polyethylene

Recleo™ PE T2006

Post-Consumer Recyclate

Description

Recleo™ PE T2006 is a low density polyethylene post-consumer recyclate (rLDPE) mainly produced from pre-sorted municipal (household) waste. Recyclclass certificate is available on the webpage and upon request. Due to the nature of our recycling process, some variation can be observed between batches. The material is supplied in pellet form.

Typical characteristics

Recleo™ PE T2006 can be described with following typical characteristics:

PCR content: 100%

Filtration: 100 µm

Color: translucent

Applications

Recleo™ PE T2006 is intended for following applications:

- Collation shrink film, shrink film and lamination films for non-food contact applications
- Packaging where reasonable optics are needed
- Transparent bags
- Industrial packaging
- Carrier bags/light colors
- Agriculture films

Note: Minor quantity of BorShape™ LLDPE significantly boosts mechanical performances of Recleo PE T2006 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)	0.85	g/10 min	ISO 1133-1
Bulk density	490	g/l	ISO 60
Moisture content ¹	≤ 0.1	%	

* Data should not be used for specification work

¹ internal method

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Film properties

Property	Typical value *	Unit	Test method
Tensile Modulus MD	215	MPa	ISO 527-3
Tensile Modulus MD	255	MPa	ISO 527-3
Tensile strength MD	13	MPa	ISO 527-3
Tensile strength TD	15	MPa	ISO 527-3
Tensile strain at break MD	220	%	ISO 527-3
Tensile strain at break TD	255	%	ISO 527-3
Tear resistance (Elmendorf) MD	1.4	N	ISO 6383-2
Tear resistance (Elmendorf) TD	4.7	N	ISO 6383-2
Dart drop	75	g	ISO 7765-1
Haze	35	%	ASTM D1003
Gloss (45°)	30	-	ASTM D2457

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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

Recleo PE T2006 is easily processed on conventional extruders. Following extrusion parameters should be used as guideline.

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

Due to differences in screw and die head designs the optimum temperature adjustments are individual and should be evaluated for each production line.

Packaging and storage

Recleo™ PE T2006 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 website www.borealisgroup.com.

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