

Polyethylene

NAV104

Post-Consumer Recyclate



Accelerating Action
on Circularity

Description

NAV104 is a light-coloured low density polyethylene post-consumer recyclate (rLDPE) supplied in pellet form for high-end blown film applications. NAV104 is an ideal LDPE used where sustainability and circularity matter. NAV104 is a post-consumer recyclate including a large part of recycled post-consumer plastic waste coming from pre-sorted municipal (household) waste. NAV104 is part of the EuCertPlast certificate according to the European Standard EN 15343:2007 (certificate available upon request). Due to the nature of recyclates, some variation in colour can be observed between batches.

Typical characteristics

NAV104 can be described with following typical characteristics:

Light-coloured

Pellet shape: lenticular

Available in homogenised 24-ton truckloads

Filtration: 100 µm

Applications

NAV104 is intended for following applications:

- Premium light-coloured garbage bags
- Non-food contact consumer packaging where transparency is not a key parameter
- Agricultural films

Physical properties

Property	Typical value *	Unit	Test method
Density	0.935	g/cm ³	ISO 1183
Melt flow rate (190 °C/2.16 kg)	0.7	g/10 min	ISO 1133-1
Bulk density	500	g/l	ISO 60
Moisture content ¹	≤ 0.05	%	

* Data should not be used for specification work

¹ internal mezhod

Film properties

Property	Typical value *	Unit	Test method
Tensile Modulus MD	220	MPa	ISO 527-3
Tensile Modulus TD	265	MPa	ISO 527-3
Tensile strength MD	15	MPa	ISO 527-3
Tensile strength TD	17	MPa	ISO 527-3
Tensile strain at break MD	350	%	ISO 527-3
Tensile strain at break TD	580	%	ISO 527-3
Tear resistance (Elmendorf) MD	1.0	N	ISO 6383/2
Tear resistance (Elmendorf) TD	5.4	N	ISO 6383/2
Dart drop	75	g	ISO 7765-1
Haze	70	%	ASTM D1003
Gloss (45°)	31	GU	ASTM D 2457

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Processing techniques

NAV104 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

NAV104 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.

Disclaimer

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