# **PRODUCT DATA SHEET**

# **Polyethylene**

# **NAV102**

# **Post-Consumer Recyclate**

# EverMinds\* Accelerating Action on Circularity

## **Description**

NAV102 is a translucent low density polyethylene post-consumer recyclate (rLDPE) supplied in pellet form for high-end blown film applications. NAV102 is an ideal LDPE used where sustainability and circularity matter. NAV102 is a 100% post-consumer recyclate including a large part of recycled post-consumer plastic waste coming from pre-sorted municipal (household) waste. NAV102 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**

NAV102 can be described with following typical characteristics:

Translucent Filtration: 100 μm

Available in homogenised 24-ton truckloads

### **Applications**

NAV102 is intended for following applications:

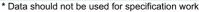
- Collation shrink film
- Shrink film
- Lamination films for non-food contact primary packaging
- Non-food contact primary packaging
- Secondary and tertiary packaging where reasonable optics are needed
- Transparent bags
- Industrial packaging
- Carrier bags/light colours
- Agriculture films
- Foam Applications

Note: Minor quantity of BorShape" LLDPE significantly boosts mechanical performances of NAV102 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 <sup>1</sup>	≤ 0.05	%	

<sup>1</sup> 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

<sup>\*</sup> Data should not be used for specification work

# **Processing techniques**

NAV102 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

NAV102 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. NAV102 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.

### **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.





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### **Disclaimer**

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