

Polyethylene

NAV101M

Post-Consumer Recyclate

Accelerating Action
on Circularity

Description

NAV101M is a transparent low density post-consumer recyclate (rLDPE) supplied in pellet form for high-end blown film applications. NAV101M is an ideal LDPE used where sustainability and circularity matter. NAV101M is 100 % post-consumer recyclate including a majority of pre-sorted municipal (household) waste. NAV101M 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 and other product properties can be observed between batches.

Cas No. 9002-88-4

Typical characteristics

NAV101M can be described with following typical characteristics:

High transparency

Low odour

Available in homogenised 24-ton truckloads

Pellet shape: lenticular

Filtration 100 µm

Applications

NAV101M 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 transparency is key parameter

Note: Minor quantity of BorShape™ LLDPE significantly boosts mechanical performances of NAV101 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/cm ³ | ISO 1183 |
| Melt flow rate (190 °C/2.16 kg) | 0.75 | g/10 min | ISO 1133-1 |
| Bulk density | 490 | g/l | ISO 1133-1 |
| Moisture content ¹ | ≤ 0.05 | % | |

* 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 TD | 255 | MPa | ISO 527-3 |
| Tensile strength MD | 15 | MPa | ISO 527-3 |
| Tensile strength TD | 16 | MPa | ISO 527-3 |
| Tensile strain at break MD | 230 | MPa | ASTM D638 |
| Tensile strain at break TD | 530 | % | ISO 527-3 |
| Tear resistance (Elmendorf) MD | 1.6 | N | ISO 6383-2 |
| Dart drop | 75 | g | ISO 7765-1 |
| Tear resistance (Elmendorf) TD | 4.3 | N | ISO 6383-2 |
| Haze | 29 | % | ASTM D1003 |
| Gloss 45° | 35 | GU | ASTM D2457 |

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Processing techniques

NAV101M 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.

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.