

Petrothene®

NA 143

Low Density Polyethylene Film Extrusion Grade Melt Index 2.0 Density 0.921

Applications

PETROTHENE NA 143 is a series of homopolymer resins for blown film. Applications include stiff liners.

Certification

The basic resin NA 143 meets the requirements of the Food and Drug Administration regulation 21 CFR 177.1520. This regulation allows the use of this olefin polymer in "...articles or components of articles intended for use in contact with food." Specific limitations or conditions of use may apply. Contact your Equistar sales representative for more information regarding the suitability of specific products for specific applications.

Processing Techniques

Specific recommendations for processing NA 143 can only be made when the processing conditions, equipment and end use are known. For further suggestions, please contact your Equistar sales representative.

Typical Properties

NA 143 exhibits good processability and clarity. Specific property data are listed in the table.

| Property* | Nominal Value | Units | ASTM Test Method |
|--|-----------------|-------------------|-------------------|
| Melt Index | 2.0 | g/10 min | D 1238 |
| Density | 0.921 | g/cm ³ | D 1505 |
| Vicat Softening Point | 93 | °C | D 1525 |
| Film** | | | |
| Haze | 6.0 | % | D 1003 |
| Gloss, 45° | 70 | | D 2457 |
| Tensile Strength, MD (TD) | 3,400 (2,500) | psi | D 882 |
| Elongation, MD (TD) | 300 (500) | % | D 882 |
| Dart Drop Impact Strength, F ₅₀ | 90 | g | D 1709 |
| 1% Secant Modulus, MD (TD) | 28,000 (32,000) | psi | D 882 |
| Elmendorf Tear Strength, MD (TD) | 380 (200) | g | D 1922 |
| Molding | | | |
| Tensile Strength ¹ | 1,720 | psi | D 638 |
| Elongation @ Break | 650 | % | D 638 |
| | <u>Product</u> | <u>NA 143-063</u> | <u>NA 143-089</u> |
| | Slip | Medium | None |
| | Antiblock | Medium | Medium |

* These are typical values and not to be construed as specific product limits.

** Data obtained from film produced in a 3½" (89 mm) blown film line, commercially available 8" (203 mm) die, 375°F (191°C) melt extrusion temperature, 2:1 BUR, 1.25 mil (32 micron) gauge, 0.025" die gap at 130 lb/hr.

¹ Data derived from Type IV specimen, 75 mil plaque, @ 20" min.

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