

PRODUCT DATA SHEET



MFR 10
Density 948 **ETILINAS HD5301AA**

High Density Polyethylene Blown Film Applications

DESCRIPTION

ETILINAS HD5301AA is a high density polyethylene (HDPE) with butene copolymer, supplied in pellet form, which is suitable for a wide variety of film applications. It meets the United States Food and Drug Administration (US FDA) criteria for food contact use as specified in 21 CFR 177.1520 (c) 3.1a & 3.2a and Commission Regulation (EU) No. 10/2011.

CHARACTERISTICS include:

- Excellent impact and toughness properties
- High stiffness

APPLICATIONS include:

- Carrier bags
- Merchandise packaging
- Food packaging
- Refuse sacks

| Product Properties* | Test Method | Units | Value |
|-----------------------------------|-----------------------------|-------------------|---------|
| General Properties | | | |
| Melt Flow Rate, I ₂ | ASTM D 1238 @ 190°C, 2.16kg | g/10min | 0.1 |
| Melt Flow Rate, I ₂₁ | ASTM D 1238 @ 190°C, 21.6kg | g/10min | 10 |
| Nominal Density | ASTM D 1505 | kg/m ³ | 948 |
| Melting Point | ISO 3146 | °C | 132 |
| Vicat Softening Point | ISO 306 | °C | 127 |
| Mechanical Properties | | | |
| Tensile Strength at Yield (MD/TD) | ISO 527-3 | MPa | 35/30 |
| Tensile Strength at Break (MD/TD) | ISO 527-3 | MPa | 60/50 |
| Elongation at Break (MD/TD) | ISO 527-3 | % | 460/950 |
| Elmendorf Tear Strength (MD/TD) | ISO 6383/2 | g/25µm | 11/180 |
| Dart Impact Strength | ISO 7765-1, (A) | g | 140 |

*The physical properties shown are typical values obtained by averaging a number of test results and small divergence from quoted figures may occur.

Film properties are typical blown film of 15 microns extruded at Blow Up Ratio (BUR) 4:1

Typical Processing Conditions

Recommended melt temperature between 190°C to 230°C and blow up ratio from 3 to 5 with die gap 1.2mm to 1.5mm and frostline height of minimum 8 times of the die diameter.

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REGULATORY

ETILINAS HD5301AA complies with the following specification when processed using good extrusion practice:-

- US FDA Regulation 21 CFR 177.1520 and CFR 178.2010.
- Commission Regulation (EU) No. 10/2011.
- HALAL certified.
- REACH, RoHS and SVHC.

AVAILABILITY

ETILINAS HD5301AA are available in 25kg bags. The product grade and batch number are clearly marked on each bag.

STORAGE/HANDLING

ETILINAS HD5301AA should be properly stored in well ventilated environment. Prolonged or improper storage can result in deterioration of product properties. The PETRONAS Chemicals Safety Data Sheet (SDS) contains important safety information and should be viewed before using the product.

HEALTH & SAFETY

ETILINAS HD5301AA is not classified as a dangerous preparation. Please refer to our Safety Data Sheet (SDS) for details on various aspects of safety, recovery and disposal of the product.

PRODUCT STEWARDSHIP

PETRONAS aims to increase awareness of all the hazards associated with the storage, handling and use of its products. Thoroughly reviewing the accompanying Safety Data Sheets and disseminating the information to all dependent and interested parties is an essential part of any 'Responsible Care' programme.

RELATED DOCUMENTS

The following related documents are available on request, and represent various aspects on the usability, safety, recovery and disposal of the product.

Safety Data Sheet (SDS)
Statement on chemicals, regulations and standards
Statement on compliance to food contact regulations

FOR MORE INFORMATION

Please contact **PETRONAS Chemicals Group Berhad (PCGB)**, Tower 1, PETRONAS Twin Towers, Kuala Lumpur City Centre, 50088 Kuala Lumpur, Malaysia.

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CERTIFIED TO ISO 9001:2015
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