

PRODUCT DATA SHEET

MFR 10
Density 950 **ETILINAS HD 5201AA**

High Density Polyethylene Blow Moulding Applications

DESCRIPTION

ETILINAS HD5201AA is a medium molecular weight density polyethylene copolymer grade, supplied in pellet form, which has an optimum balance properties for use in a wide range of blow moulding and extrusion applications. ETILINAS HD5201AA meets the United States Food and Drug Administration (US FDA) criteria for food contact use as specified in CFR 177.1520 (c) 3.1a & 3.2a and Commission Regulation (EU) No. 10/2011.

CHARACTERISTICS include:

- Easy processing
- Good rigidity
- Excellent environmental stress cracking resistance
- High impact strength
- High melt strength

APPLICATIONS include:

- High performance blow moulded containers up to 5 to 200 litres capacity for Household, Industrial and Chemicals (HIC) containers.

| Product Properties* | Test Method | Units | Value |
|-----------------------------------|---|-------------------|-------|
| General Properties | | | |
| Melt Flow Rate, I ₅ | ISO 1133 @ 190°C, 5.0kg | g/10min | 0.45 |
| Melt Flow Rate, I _{21.6} | ISO 1133 @ 190°C, 21.6kg | g/10min | 10.0 |
| Nominal Density | ISO 1183 | kg/m ³ | 949 |
| Melting Point | ISO 3146 | °C | 132 |
| Vicat Softening Point | ISO 306 | °C | 127 |
| Mechanical Properties | | | |
| Tensile Strength at Yield | ASTM D 638, 50mm/min, type 4 | MPa | 30 |
| Elongation at Break | ASTM D 638, 50mm/min, type 4 | % | 700 |
| Young Modulus | ASTM D 638 | MPa | 400 |
| Flexural Modulus | ASTM D 790 | MPa | 1100 |
| Charpy Impact Strength | ISO 179, type 1 Notch A | kJ/m ² | 17 |
| Heat Deflection Temperature | ASTM D 648, Method B | °C | 68 |
| Vicat Softening Temperature | ASTM D 1525, Load:1kg; Heating rate:50°C/hr | °C | 128 |
| ESCR, Cond. B, F ₅₀ | ASTM D 1693, 100% Igepal | hrs | >1000 |

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

Typical Processing Conditions

Recommended melt temperature is in the range of from 170°C to 210°C depending on the type of machine.

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SPECIFICATIONS

ETILINAS HD 5201AA complies with the following specification when processed using good extrusion practice:-

- FDA Regulation 21 CFR 177.1520. Suitable for food packaging and certificate available upon request.
- HALAL certified, JAKIM/(S)/(22.00)/492/2/1 011-03/2011.

AVAILABILITY

ETILINAS HD 5201AA are available in bulk hopper trucks, sea bulk containers or bags. The product type and batch number are clearly marked on each bag.

STORAGE/HANDLING

ETILINAS HD 5201AA should be properly stored in well ventilated environment at a temperature of below 50°C. 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 HD 5201AA 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

PCGB has a fundamental concern for all who make, distribute, and use its products, and for the environment in which we live. Our Product Stewardship program rests with each and every individual involved with PCGB's products– from the initial concept and research, to manufacture, use, sale and disposal of each product.

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)**, Level 15, Tower 1, PETRONAS TWIN TOWER, KLCC, 50088 KUALA LUMPUR, MALAYSIA.

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