PRODUCT DATA SHEET

PETRONAS

MFR 1.3
Density 952

ETILINAS HD5403AA

High Density Polyethylene Blow Moulding Applications

DESCRIPTION

ETILINAS HD5403AA is a high density polyethylene (HDPE) with butene copolymer, supplied in pellet form, which has an optimum balance properties for use in a wide range of blow moulding and extrusion 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:

- Easy processing
- Good rigidity
- High environmental stress cracking resistance
- Good impact strength
- Good surface finish

APPLICATIONS include:

- Blow moulded containers up to 10 litres capacity for Household, Industrial and Chemicals (HIC) containers
- Pharmaceuticals and personal care containers
- Non-pressure pipe, ducting and conduit

Product Properties*	Test Method	Units	Value
General Properties			
Melt Flow Rate, I_5	ASTM D 1238 @ 190°C, 5.0kg	g/10min	1.3
Melt Flow Rate, I_{21}	ASTM D 1238 @ 190°C, 21.6kg	g/10min	25
Nominal Density	ASTM D 1505	kg/m^3	952
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 IV	MPa	27
Elongation at Break	ASTM D 638, 50mm/min, Type IV	%	1100
Young Modulus	ASTM D 638, 50mm/min, Type IV	MPa	500
Flexural Modulus	ASTM D 790	MPa	1400
Charpy Impact Strength	ISO 179, Type 1, Notch A	kJ/m^2	12
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	50

*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 170°C to 210°C depending on the type of machine.

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REGULATORY
ETILINAS HD5403AA 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 HD5403AA are available in 25kg bags. The product grade and batch number are clearly marked on each bag.

STORAGE/HANDLING
ETILINAS HD5403AA 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 HD5403AA 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
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CERTIFIED TO ISO 9001:2015
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