

PRODUCT DATA SHEET



MFR 4.0
Density 938 **ETILINAS LL3840UA**

Linear Medium Density Polyethylene for Rotational Moulding Applications

DESCRIPTION

ETILINAS LL3840UA is a linear medium density polyethylene grade with narrow molecular weight distribution, supplied in pellet form for use as a rotational moulding grade. It contains high level of UV stabilizer to give UV8 rating protection. 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:

- Higher productivity
- Broader processing window
- Energy saving
- Enhances impact properties and ductility
- UV stabilized (UV8 rating)
- Improves colour

APPLICATIONS include:

- Rotational moulded items i.e: water tanks, septic tanks, fish boxes, road barrier, recreational gear
- Injection moulded items i.e: lids, pails, waste bins

Product Properties*	Test Method	Units	Value
General Properties			
Melt Flow Rate, I ₂	ASTM D 1238 @ 190°C, 2.16kg	g/10min	4.0
Nominal Density	ASTM D 1505	kg/m ³	938
Melting Point	ISO 3146	°C	124
Crystallization Point	ISO 3146	°C	111
Mechanical Properties			
Tensile Strength at Yield	ASTM D 638, 50mm/min, Type IV	MPa	21
Tensile Strength at Break	ASTM D 638, 50mm/min, Type IV	MPa	18
Elongation at Break	ASTM D 638, 50mm/min, Type IV	%	800
Flexural Modulus	ASTM D 790	MPa	800
Charpy Impact Strength	ISO 179, Type 1, Notch A	kJ/m ²	12
Surface Hardness	ASTM D 2240 @ 23°C	Shore D	60
Heat Deflection Temperature	ASTM D 648, Method B	°C	70
Vicat Softening Temperature	ASTM D 1525, Load: 1 kg; Heating rate: 50°C/hr	°C	120
ESCR, Cond. B, F ₅₀	ASTM D 1693, 100% Igepal	hrs	300

*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

Processing temperature of **ETILINAS LL3840UA** is in the range of 200°C to 300°C depending on the mould material, wall thickness and material weight.

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REGULATORY

ETILINAS LL3840UA 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 LL3840UA are available in 25kg bags. The product grade and batch number are clearly marked on each bag.

STORAGE/HANDLING

ETILINAS LL3840UA 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 LL3840UA 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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