

PRODUCT DATA SHEET



ETILINAS LL3870UA

Polyethylene for Rotational Moulding and Caps & Closures Application

DESCRIPTION

ETILINAS LL3870UA is a linear medium density polyethylene grade with narrow molecular weight distribution suitable for use in rotational moulding and injection moulding application. It exhibits excellent flowability specifically designed to meet the quality requirement of intricate articles and faster cycle time. The resin has been formulated with a highly effective stabilization system for outdoor application meeting UV8 rating protection whilst maintaining excellent organoleptic properties

KEY CHARACTERISTICS:

- Excellent flowability and processability
- Shorter production cycle time
- Excellent organoleptic properties
- Balance of toughness and stiffness performance
- Formulation meets UV8 rating

APPLICATIONS :

ETILINAS LL3870UA designed for excellent flowability with balance of toughness and stiffness performance suitable for rotational moulding application (e.g. toys, water tank, septic tank, recreational gears) and injection moulding application (e.g. caps & closures and general injection articles)

General Properties	Test Method	Units	Value
Melt Flow Rate	ASTM D1238 190°C, 2.16kg	g/10min	7
Nominal Density	ASTM D1505	kg/m ³	938
Melting Point	ISO 3146	°C	127
Crystallization Point	ISO 3146	°C	110

Mechanical Properties	Test Method	Units	Value
Tensile Strength @ Yield	ISO 527-2 Type 1B	MPa	17.5
Tensile Strength @ Break	ISO 527-2 Type 1B	MPa	9
Elongation @ Break	ISO 527-2 Type 1B	MPa	140
Young's Modulus	ISO 527-2 Type 1B	MPa	405
Izod Impact Strength	ISO 180, Type 1, Notched A	kJ/m ²	7
Charpy Impact Strength	ISO 179, Type 1, Notched A	kJ/m ²	7
Flexural Modulus	ASTM D790 procedure B	MPa	610
ESCR, Cond. B, F ₅₀	ASTM D1693, 10% Igepal	Hrs	12

Recommended Processing Temperature :

Rotational moulding : 200°C to 300°C depending on the mould material, wall thickness and part weight

Injection moulding : 170°C to 190°C depending on the number of cavities and part weight

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AVAILABILITY

ETILINAS LL3870UA is available in 25kg bag and bulk bag. The product type and batch number are clearly marked on each bag.

STORAGE/HANDLING

ETILINAS LL3870UA 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 LL3870UA 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' program.

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 standard statement on compliance to food contact regulations

FOR MORE INFORMATION

Please contact [PETRONAS Chemicals Group Berhad \(PCGB\)](#), Level 34, Tower 1, PETRONAS TWIN TOWERS, KLCC, 50088 KUALA LUMPUR, MALAYSIA.

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