

# Lotrène<sup>®</sup> FD0274

LOW DENSITY POLYETHYLENE

## Low Density Polyethylene

### DESCRIPTION

Lotrène<sup>®</sup> FD0274 is mainly recommended for the extrusion of thin film for light and medium duty applications. It contains both slip additives (target 600 ppm erucamide) and anti blocking additives (target 900 ppm) as well as antioxidants.

### PROPERTIES

The molecular structure of Lotrène<sup>®</sup> FD0274 makes it possible to produce very thin, clear and glossy films.

| POLYMER PROPERTIES        | VALUE | UNIT              | TEST METHOD |
|---------------------------|-------|-------------------|-------------|
| Melt Flow Index           | 2.4   | g/10 min.         | ASTM D-1238 |
| Density @ 23 °C           | 0.923 | g/cm <sup>3</sup> | ASTM D-1505 |
| Crystalline Melting Point | 108   | °C                | ASTM E-794  |
| Vicat Softening Point     | 89    | °C                | ASTM D-1525 |

| FILM PROPERTIES                 | VALUE   | UNIT | TEST METHOD     |
|---------------------------------|---------|------|-----------------|
| Tensile Strength @ Yield MD/ TD | 11/11   | MPa  | ASTM D-882      |
| Tensile Strength @ Break MD/ TD | 24/22   | MPa  | ASTM D-882      |
| Elongation @ Break MD/ TD       | 300/600 | %    | ASTM D-882      |
| Impact Strength, F 50           | 110     | g    | ASTM D-1709     |
| Tear resistance MD/ TD          | 65/35   | N/mm | ASTM D- 1922    |
| Puncture Force                  | 30      | N    | Internal Method |
| Coefficient Of friction         | 0.12    |      | ASTM D-1894     |
| Haze                            | 8.0     | %    | ASTM D-1003     |
| Gloss @ 45°                     | 59      |      | ASTM D-2457     |

(Film properties stated above have been obtained using 40 µm blown films laboratory test specimens produced under following conditions: 45 mm screw with L/D = 30, die diameter 120 mm, die gap 1.56 mm, BUR 2.5:1).

### PROCESSING

Lotrène<sup>®</sup> FD0274 can be easily processed on all types of extruders to make blown or cast films.

The melt temperature is suggested to be in the range of 140-150 °C.

The best properties of the blown film are achieved at blow up ratios between 2:1 and 3:1.

To avoid blocking and shrinkage on the reel, temperature at the nip rolls and take-off should be kept as close as possible to the ambient temperature.

The recommended thickness range is from 20 µm to 100 µm

## APPLICATIONS

- Thin transparent film
- Thin shrink film
- Foam products
- Food packaging,
- Deep Freeze
- Lamination film

## HANDLING & STORAGE

Polyethylene products should be stored in their original packaging or in clean appropriate silos.

The products should be stored in a dry and well-ventilated area and should not be exposed to direct sunlight and/ or heat in any form since this may adversely affect their properties.

As a general rule, our products should not be stored for more than three months from receipt date.

## SAFETY

Under normal conditions Lotrène® products do not present a toxic hazard through skin contact or inhalation. For detailed information please refer to the Safety Data Sheet.

## FOOD CONTACT & REACH

Lotrène® polyethylene products manufactured by Qatar Petrochemical Company (QAPCO) Q.S.C. comply with US, EU and other food contact legislations. Limitations may apply.

All QAPCO Lotrène products are complying with REACH Regulation 1907/2006/EC. The aims of this regulation are to improve the protection of human health and the environment through better and earlier identification of the intrinsic properties of chemical substances.

Please contact your Muntajat representative for detailed compliance certificates.

NOT SUITABLE FOR PHARMACEUTICAL OR MEDICAL APPLICATIONS

## TECHNICAL DISCLAIMER

The values reported in this technical data sheet are the results of tests carried out in accordance with standard test procedures in a laboratory environment. Actual properties may vary depending on batch and extrusion conditions. Therefore, these values should not be used for specification purposes.

Before using this product, the user is advised and cautioned to make its own determination and assessment of the safety and suitability of the product for the specific use in question, and is further advised against relying on the information contained herein as it may relate to any specific use or application.

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