

## Low Density Polyethylene

### DESCRIPTION

Lotrène® FE3000 is an additive free grade produced by a tubular high pressure process mainly recommended for heavy duty film applications.

### PROPERTIES

Lotrène® FE3000 is offering high strength combined with good optical properties. Lotrène® FE3000 has a molecular structure allowing to produce films with excellent optical properties, very good shrink properties and good mechanical properties.

POLYMER PROPERTIES	VALUE	UNIT	TEST METHOD
Melt Flow Index	0.30	g/10 min.	ASTM D-1238
Density @ 23 °C	0.923	g/cm <sup>3</sup>	ASTM D-792
Crystalline Melting Point	112	°C	ASTM E-794
Vicat Softening Point	99	°C	ASTM D-1525

FILM PROPERTIES	VALUE	UNIT	TEST METHOD
Tensile Strength @ Yield MD/ TD	12/12	MPa	ASTM D-882
Tensile Strength @ Break MD/ TD	35/29	MPa	ASTM D-882
Elongation @ Break MD/ TD	400/600	%	ASTM D-882
Impact Strength, F 50	150	g	ASTM D-1709
Tear resistance MD/ TD	47/47	N/mm	ASTM D-1922
Puncture Force	62	N	Internal Method
Coefficient Of friction	0.75		ASTM D-1894
Haze	8	%	ASTM D-1003
Gloss (@ 45 °)	56		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® FE3000 can be easily processed on all types of extruders designed for polyethylene.

The melt temperature is suggested to be in the range of 180-210 °C.

The best and balanced properties of the blown film are achieved at blow up ratios between 2.0: 1 and 3.5:1.

The recommended thickness range is from 40 µm to 200 µm.

## APPLICATIONS

- Heavy duty bags
- Industrial shrink film
- Construction film
- Agricultural 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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