

# QATAR PETROCHEMICAL COMPANY LTD.

## Lotrène® FE3000

### LOW DENSITY POLYETHYLENE

#### DESCRIPTION

Lotrène® FE3000 is an additive free grade produced by a tubular high pressure process, offering high strength combined with good optical properties, mainly recommended for heavy duty film applications.

#### PROPERTIES

Lotrène® FE3000 has a suitable molecular structure to produce film 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-1505
Crystalline Melting Point	111	°C	ASTM E-794
Vicat Softening Point	95	°C	ASTM D-1525

FILM PROPERTIES	VALUE	UNIT	TEST METHOD
Tensile Strength @ Yield MD/ TD	11/10	MPa	ASTM D-882
Tensile Strength @ Break MD/ TD	24/23	MPa	ASTM D-882
Elongation @ Break MD/ TD	400/600	%	ASTM D-882
Impact Strength, F 50	210	g	ASTM D-1709
Coefficient Of friction	0.50	-	ASTM D-1894
Haze	12	%	ASTM D-1003
Gloss (@ 45 °)	50	-	ASTM D-2457
Clarity	40	%	ASTM D-1746

*Note:* The values given in this technical data sheet are provisional data given as indication to enable customers to make the best use of our products but must be considered as average values provided without implying any undertaking on our part.

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## 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.

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 50 µm to 250 µm.

## APPLICATIONS

- Heavy duty bags
- Industrial shrink film
- Construction film
- Agricultural film
- Drip irrigation pipe

## SAFETY AND STORAGE

Under normal conditions **Lotrène® FE3000** does not present a toxic hazard through skin contact or inhalation. During processing, contact with molten polymer and inhalation of volatilized fumes should be avoided.

**Lotrène® FE3000** complies with food grade regulations FDA, 21 CFR chapter 177 – 1520 “Olefin Polymers”. Items made from this grade do not transmit tastes nor odor to the material in contact with.

**Lotrène® FE3000** is inflammable and combustible (category 3) according to ISO R 1210.

**Lotrène® FE3000** is supplied in plastic bags of 25 kg (net weight) each. The bags are stacked and shrink wrapped on pallets of 1500 kg each (net weight). The product is forwarded either by trucks or in 20- 40foot sea containers.

**Lotrène® FE3000** should not be stored for more than three months nor be exposed to direct sunlight and/or heating during storage since this may adversely affect the properties of the product.

NB: **Lotrène® FE3000** is not suitable for application in the pharmaceutical or medical sector.