



**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/cm3     | 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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Technical Customer Service



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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.