

## POLYETHYLENE

### FS253S

#### Linear Low Density Polyethylene for film application

#### Description

FS253S is a linear low density polyethylene resin designed for blown film applications. This resin has a relatively high MFR that makes it an easy processing material. Films made from this resin exhibits high transparency, good toughness and good extrusion characteristics.

#### Applications

- General purpose film
- Clothes packaging
- Agriculture film

| Additive Package                   |    | Slip Agent            | Anti-block         |               |
|------------------------------------|----|-----------------------|--------------------|---------------|
| FS253S                             |    | High                  | High               |               |
| Resin Properties                   |    | Unit                  | Test Method        | Typical Value |
| MFR (190°C/2.16Kg)                 |    | g/10min               | ASTM D1238         | 2.2           |
| Density                            |    | g/cm <sup>3</sup>     | ASTM D792 Method A | 0.921         |
| Melting Point                      |    | °C                    | DSC                | 122           |
| Film Properties*                   |    |                       |                    |               |
| Tensile Strength at Break          | MD | MPa                   | ASTM D882          | 35            |
|                                    | TD |                       |                    | 30            |
| Tensile Elongation at Break        | MD | %                     | ASTM D882          | 765           |
|                                    | TD |                       |                    | 925           |
| 1% Secant Modulus                  | MD | MPa                   | ASTM D882          | 205           |
|                                    | TD |                       |                    | 255           |
| Elmendorf Tear Strength            | MD | gf                    | ASTM D1922         | 125           |
|                                    | TD |                       |                    | 350           |
| Dart Drop Impact                   |    | g                     | ASTM D1709         | 90            |
| Blocking Load                      |    | gf/100cm <sup>2</sup> | ASTM D3354         | 14            |
| Coefficient of Friction (exterior) |    | μs                    | ASTM D1894         | 0.11          |
|                                    |    | μk                    |                    | 0.08          |
| Haze                               |    | %                     | ASTM D1003         | 15            |
| Gloss 45-degree                    |    |                       | ASTM D2457         | 55            |

\*Film processing conditions: Extruder Φ55 mm, Die Φ125 mm, Die lip gap 2.0 mm, Temperature 170 °C, Output rate 30 kg/h, BUR 2.0, Film thickness 30 μm.

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**Processing conditions:** Typical processing conditions: 160 - 200 °C

**Storage and handling:** FS253S should be stored in a dry cool place with adequate ventilation and protected from UV-light at temperature below 50 °C. It is advisable to process polyethylene resins within 6 months after delivery.

**Food Contact Compliance and other Regulations:** Please visit Petro Rabigh website.