

Safrene™ (High Density PolyEthylene)

Technical Data Sheet

F 7740F2

High Density Polyethylene for General Extrusion Applications

Safrene® F 7740F2 High Density Polyethylene Resin is a medium molecular mass extrusion grade ideally suited to the extrusion and subsequent knitting of tapes and monofilaments typically used in agricultural pockets and shade netting.

Safrene® F 7740F2 High Density Polyethylene Resin is also used for film extrusion applications where excellent roll geometry is required. As a film it exhibits an excellent barrier to moisture.

Safrene® F 7740F2 High Density Polyethylene Resin contains slip and antistatic additives.

Typical Applications

- Monofilaments
- Stretched tapes
- Films for laminating
- Co-extruded films
- Drip-bag over pouches

| PROPERTIES ⁽¹⁾ | VALUE | UNIT | TEST METHOD |
|---|---------|--------------------|-------------|
| Physical | | | |
| Melt Flow Rate, 190 °C/ 5 kg | 1.9 | g/10min | ISO 1133 |
| Melt Flow Rate, 190 °C/ 2.16 kg | 0.4 | g/10min | ISO 1133 |
| Density ⁽²⁾ | 0.946 | g/cm ³ | ISO 1183 |
| Viscosity Number | 270 | cm ³ /g | ISO 1628-3 |
| Spiral Flow Test | 32 | cm | Internal |
| Mechanical ⁽³⁾ | | | |
| Hardness Shore D | 60 | Units | ISO 868 |
| Tensile Yield ⁽⁴⁾ | 21 | MPa | ISO 527 |
| Ultimate Tensile ⁽⁴⁾ | 33 | MPa | ISO 527 |
| Ultimate Elongation ⁽⁴⁾ | >600 | % | ISO 527 |
| Flexural Modulus (3.5% Deflection) | 17 | MPa | ISO 178 |
| Impact ⁽³⁾ | | | |
| Charpy Notched Impact Strength (23 °C) | 15 | kJ/m ² | ISO 179 |
| Charpy Notched Impact Strength (-30 °C) | 8 | kJ/m ² | ISO 179 |
| Thermal | | | |
| Vicat Softening Point, Load 5kg | 73 | °C | ISO 306 |
| Crystalline Melting Range | 130-133 | °C | ISO 3146-85 |

(1) Typical values; not to be construed as specification limits.

(2) Unannealed.

(3) Compression moulded samples.

(4) Test speed 50mm/min

| Typical processing conditions | Extrusion | Film Extrusion |
|-------------------------------|-----------|----------------|
| Feed Zone (°C) | 170 | 170 |
| Die (°C) | 250 - 260 | 210 - 220 |
| Melt Temp (°C) | 210 - 250 | 190 - 240 |

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| Food Contact Compliance | <p>Safrene® F 7740F2 High Density Polyethylene Resin should comply with Commission Regulation (EU) No 10/2011 and with U.S. FDA 21 CFR 177.1520(c)3.1c food contact regulations when used unmodified and processed according to good manufacturing practices for food contact applications. The purchaser remains responsible for determining whether the use complies with all relevant regulations.</p> |
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Additional Information

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