



Technical Data Sheet

ELITE™ 5230S Enhanced Polyethylene Resin

Overview

ELITE™ 5230S Enhanced Polyethylene Resin is produced via INSITE™ Technology from Dow. This resin offers high impact strength and good puncture resistance at moderate stretch levels for irregularly shaped loads. In addition, this resin provides excellent extensibility for higher yields on regular loads.

Sustainability Attribute:



- Excellent extensibility
- High impact and puncture resistance

Complies with:

- U.S. FDA FCN 424

Consult the regulations for complete details.

Additive

- Antiblock: No
- Slip: No
- Processing aid: No

Physical Properties

| Physical | Nominal Value | Unit (English) | Nominal Value | Unit (SI) | Test Method ¹ |
|---|---------------|-----------------------|---------------|-------------------|--------------------------|
| Density | 0.916 | g/cm ³ | 0.916 | g/cm ³ | ASTM D792 |
| Melt Index (190°C/2.16 kg) | 4.0 | g/10 min | 4.0 | g/10 min | ASTM D1238 |
| Films | | | | | |
| Film Thickness - Tested | 1 | mil | 20 | µm | |
| Film Puncture Force ² (0.80 mil (20 µm)) | 11.0 | lbf | 48.9 | N | Dow Method |
| Film Puncture Resistance (0.80 mil (20 µm)) | 326 | ft·lb/in ³ | 27.0 | J/cm ³ | Dow Method |
| Tensile Strength | | | | | ASTM D882 |
| MD : Yield, 0.80 mil (20 µm) | 1320 | psi | 9.07 | MPa | |
| TD : Yield, 0.80 mil (20 µm) | 1220 | psi | 8.39 | MPa | |
| MD : Break, 0.80 mil (20 µm) | 6670 | psi | 46.0 | MPa | |
| TD : Break, 0.80 mil (20 µm) | 5520 | psi | 38.1 | MPa | |



Physical Properties (Cont.)

| Films | Nominal Value | Unit (English) | Nominal Value | Unit (SI) | Test Method |
|--|---------------|----------------|---------------|-----------|-------------|
| Tensile Elongation | | | | | ASTM D882 |
| MD : Break, 0.80 mil (20 μm) | 540 | % | 540 | % | |
| TD : Break, 0.80 mil (20 μm) | 720 | % | 720 | % | |
| Dart Drop Impact (0.80 mil (20 μm)) | 320 | g | 320 | g | ASTM D1709B |
| Elmendorf Tear Strength | | | | | ASTM D1922 |
| MD : 0.80 mil (20 μm) | 310 | g | 310 | g | |
| TD : 0.80 mil (20 μm) | 510 | g | 510 | g | |
| Ultimate Stretch ³ (0.8 mil / 20.3 μm) | 330 | % | 330 | % | Dow Method |
| Thermal | | | | | |
| Melting Temperature (DSC) | 252 | °F | 122 | °C | Dow Method |
| Optical | | | | | |
| Gloss (45°, 0.800 mil / 20.3 μm)) | 95 | | 95 | | ASTM D2457 |
| Haze (0.800 mil / 20.3 μm)) | 0.500 | % | 0.500 | % | ASTM D1003 |
| Extrusion | | | | | |
| Melt Temperature | 520 | °F | 271 | °C | |
| Extrusion Notes | | | | | |
| Fabrication Conditions for Cast Film: | | | | | |
| <ul style="list-style-type: none"> • Die Gap: 20 mil (0.50 mm) • Melt Temperature: 520°F (271°C) • Air Gap: 3 in. (7.6 cm) • Haul Off Speed: 600 fpm (183 m/min) | | | | | |

