# DOWLEX™ 2645.11G
## Polyethylene Resin

**Overview**

DOWLEX™ Polyethylene Resin is designed for the production of a wide variety of film applications. Films made from this resin exhibit a combination of good toughness and tear resistance.

Complies with:

- U.S. FDA, FCN 1539
- EU, No 10/2011
- Consult the regulations for complete details.

**Additive**

- Antiblock: 3000 ppm
- Slip: 1200 ppm
- Processing Aid: No

| Physical | Nominal Value | (English) | Nominal Value | (SI) | Test Method |
|---|---|---|---|---|---|
| Density | 0.921 | g/cm³ | 0.921 | g/cm³ | ASTM D792 |
| Base Density [1] | 0.919 | g/cm³ | 0.919 | g/cm³ | Dow Method |
| Melt Index (190°C/2.16 kg) | 0.90 | g/10 min | 0.90 | g/10 min | ASTM D1238 |
| **Films** | **Nominal Value** | **(English)** | **Nominal Value** | **(SI)** | **Test Method** |
| Film Thickness - Tested | 2 | mil | 51 | µm | |
| Film Puncture Resistance (2.0 mil (51 µm)) | 80.0 | ft·lb/in³ | 6.62 | J/cm³ | Dow Method |
| Secant Modulus | | | | | ASTM D882 |
| 2% Secant, MD : 2.0 mil (51 µm) | 24400 | psi | 168 | MPa | |
| 2% Secant, TD : 2.0 mil (51 µm) | 34500 | psi | 238 | MPa | |
| Tensile Strength | | | | | ASTM D882 |
| MD : Yield, 2.0 mil (51 µm) | 2060 | psi | 14.2 | MPa | |
| TD : Yield, 2.0 mil (51 µm) | 2120 | psi | 14.6 | MPa | |
| MD : Break, 2.0 mil (51 µm) | 7080 | psi | 48.8 | MPa | |
| TD : Break, 2.0 mil (51 µm) | 5680 | psi | 39.2 | MPa | |
| Tensile Elongation | | | | | ASTM D882 |
| MD : Break, 2.0 mil (51 µm) | 660 | % | 660 | % | |
| TD : Break, 2.0 mil (51 µm) | 740 | % | 740 | % | |
| Dart Drop Impact (2.0 mil (51 µm)) | 300 | g | 300 | g | ASTM D1709A |
| Elmendorf Tear Strength | | | | | ASTM D1922 |
| MD : 2.0 mil (51 µm) | 720 | g | 720 | g | |
| TD : 2.0 mil (51 µm) | 1000 | g | 1000 | g | |
| **Thermal** | **Nominal Value** | **(English)** | **Nominal Value** | **(SI)** | **Test Method** |
| Vicat Softening Temperature | 225 | °F | 107 | °C | ASTM D1525 |
| Melting Temperature (DSC) | 248 | °F | 120 | °C | Dow Method |
| **Optical** | **Nominal Value** | **(English)** | **Nominal Value** | **(SI)** | **Test Method** |
| Gloss (45°, 2.00 mil (50.8 µm)) | 56 | | 56 | | ASTM D2457 |
| Haze (2.00 mil (50.8 µm)) | 14.0 | % | 14.0 | % | ASTM D1003 |

**Extrusion Notes**

Fabrication Conditions For Blown Film:

- Screw Size: 2.5 in. (63.5 mm) 30:1L/D
- Screw Type: DSBII
- Die Gap: 70 mil (1.8 mm)
- Output: 10 lb/hr/in. of die circumference
- Die Diameter: 6 in.
- Blow-Up Ratio: 2.5 : 1


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**Notes**

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

[1] Base density is estimated using the assumption that every 1000 ppm of antiblock in the finished product raises the density of the polymer by 0.0006 g/cm³. Base density is the estimated density of the polymer if it did not contain any antiblock.

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