



## DOWLEX™ 2047G

### Polyethylene Resin

#### Overview

- Linear Low Density Polyethylene
- For high performance stretch film applications
- Outstanding tear strength, impact strength and toughness

Complies with:

- U.S. FDA, FCN 424
- EU, No 10/2011

Consult the regulations for complete details.

#### Additive

- Antiblock: No
- Slip: No
- Processing Aid: No

| Physical                                    | Nominal Value (English)    | Nominal Value (SI)      | Test Method |
|---------------------------------------------|----------------------------|-------------------------|-------------|
| Density                                     | 0.917 g/cm <sup>3</sup>    | 0.917 g/cm <sup>3</sup> | ASTM D792   |
| Base Density <sup>1</sup>                   | 0.917 g/cm <sup>3</sup>    | 0.917 g/cm <sup>3</sup> | Dow Method  |
| Melt Index (190°C/2.16 kg)                  | 2.3 g/10 min               | 2.3 g/10 min            | ASTM D1238  |
| Films                                       | Nominal Value (English)    | Nominal Value (SI)      | Test Method |
| Film Thickness - Tested                     | 1 mil                      | 20 µm                   |             |
| Film Puncture Resistance (0.80 mil (20 µm)) | 267 ft·lb/in <sup>3</sup>  | 22.1 J/cm <sup>3</sup>  | Dow Method  |
| Film Toughness                              |                            |                         | ASTM D882   |
| MD : 0.80 mil (20 µm)                       | 2130 ft·lb/in <sup>3</sup> | 176 J/cm <sup>3</sup>   |             |
| TD : 0.80 mil (20 µm)                       | 2060 ft·lb/in <sup>3</sup> | 171 J/cm <sup>3</sup>   |             |
| Tensile Strength                            |                            |                         | ASTM D882   |
| MD : Yield, 0.80 mil (20 µm)                | 1280 psi                   | 8.79 MPa                |             |
| TD : Yield, 0.80 mil (20 µm)                | 1180 psi                   | 8.16 MPa                |             |
| MD : Break, 0.80 mil (20 µm)                | 7270 psi                   | 50.1 MPa                |             |
| TD : Break, 0.80 mil (20 µm)                | 4180 psi                   | 28.8 MPa                |             |
| Tensile Elongation                          |                            |                         | ASTM D882   |
| MD : Break, 0.80 mil (20 µm)                | 460 %                      | 460 %                   |             |
| TD : Break, 0.80 mil (20 µm)                | 650 %                      | 650 %                   |             |
| Dart Drop Impact (0.80 mil (20 µm))         | 210 g                      | 210 g                   | ASTM D1709A |
| Elmendorf Tear Strength                     |                            |                         | ASTM D1922  |
| MD : 0.80 mil (20 µm)                       | 340 g                      | 340 g                   |             |
| TD : 0.80 mil (20 µm)                       | 510 g                      | 510 g                   |             |
| Thermal                                     | Nominal Value (English)    | Nominal Value (SI)      | Test Method |
| Vicat Softening Temperature                 | 208 °F                     | 97.8 °C                 | ASTM D1525  |
| Melting Temperature (DSC)                   | 252 °F                     | 122 °C                  | Dow Method  |
| Optical                                     | Nominal Value (English)    | Nominal Value (SI)      | Test Method |
| Gloss (45°, 0.800 mil (20.3 µm))            | 95                         | 95                      | ASTM D2457  |
| Haze (0.800 mil (20.3 µm))                  | 0.400 %                    | 0.400 %                 | ASTM D1003  |

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## Extrusion Notes

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### Fabrication Conditions For Cast Film:

- Screw Size: 2.0 in. (51 mm); 30:1 L/D
  - Melt Temperature: 524°F (273°C)
- Screw Size: 2.5 in. (63.5 mm); 30:1 L/D
  - Melt Temperature: 525°F (274°C)
- Screw Size: 2.5 in. (63.5 mm); 30:1 L/D
  - Melt Temperature: 525°F (274°C)
- Screw Size: 2.5 in. (63.5 mm); 30:1 L/D
  - Melt Temperature: 524°F (273°C)
- Screw Size: 2.0 in. (51 mm); 30:1 L/D
  - Melt Temperature: 525°F (274°C)
- Chill Roll Temperature: 70°F (21°C)
- Screw Speed: 35 rpm
- Line Speed: 376 fpm (122 m/min)

## Notes

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

<sup>1</sup> 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/cm<sup>3</sup>. Base density is the estimated density of the polymer if it did not contain any antiblock.

### Contact Information:

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