

## Dow DOWLEX™ 2045.11G Linear Low Density Polyethylene

Category : Polymer , Film , Thermoplastic , Polyethylene (PE) , LLDPE

### Material Notes:

For high speed, thin film applications Additional thermal stability Complies with U.S. FDA 21 CFR 177.1520 (c) 3.2a Information provided by Dow

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Dow-DOWLEX-204511G-Linear-Low-Density-Polyethylene.php](http://www.lookpolymers.com/polymer_Dow-DOWLEX-204511G-Linear-Low-Density-Polyethylene.php)

| Physical Properties | Metric       | English                   | Comments   |
|---------------------|--------------|---------------------------|------------|
| Density             | 0.922 g/cc   | 0.0333 lb/in <sup>3</sup> | ASTM D792  |
| Thickness           | 50.8 microns | 2.00 mil                  |            |
| Melt Flow           | 1.0 g/10 min | 1.0 g/10 min              | ASTM D1238 |
| Antiblock Level     | 3000 ppm     | 3000 ppm                  |            |
| Slip Level          | 1200 ppm     | 1200 ppm                  |            |

| Mechanical Properties              | Metric        | English   | Comments                                                 |
|------------------------------------|---------------|-----------|----------------------------------------------------------|
| Film Tensile Strength at Yield, MD | 11.76 MPa     | 1705 psi  | ASTM D882                                                |
| Film Tensile Strength at Yield, TD | 12.64 MPa     | 1834 psi  | ASTM D882                                                |
| Film Elongation at Break, MD       | 670 %         | 670 %     | ASTM D882                                                |
| Film Elongation at Break, TD       | 771 %         | 771 %     | ASTM D882                                                |
| Secant Modulus, MD                 | 0.1961 GPa    | 28.44 ksi | 2% Secant; ASTM D882                                     |
| Secant Modulus, TD                 | 0.2342 GPa    | 33.97 ksi | 2% Secant; ASTM D882                                     |
| Impact                             | 118           | 118       | [ft-lbf/in<sup>3</sup>]; Puncture Resistance; Dow Method |
|                                    | 3295          | 3295      | [ft-lbf/in<sup>3</sup>]; Toughness MD; ASTM D882         |
|                                    | 3528          | 3528      | [ft-lbf/in<sup>3</sup>]; Toughness TD; ASTM D882         |
| Elmendorf Tear Strength MD         | 738 g         | 738 g     | ASTM D1922                                               |
| Elmendorf Tear Strength TD         | 1170 g        | 1170 g    | ASTM D1922                                               |
| Elmendorf Tear Strength, MD        | 14.5 g/micron | 369 g/mil | ASTM D1922                                               |
| Elmendorf Tear Strength, TD        | 23.0 g/micron | 585 g/mil | ASTM D1922                                               |
| Dart Drop Test                     | 276 g         | 0.609 lb  | Method A; ASTM D1709                                     |

| Mechanical Properties              | Metric    | English  | Comments  |
|------------------------------------|-----------|----------|-----------|
| Film Tensile Strength at Break, MD | 41.93 MPa | 7992 psi | ASTM D882 |
| Film Tensile Strength at Break, TD | 44.3 MPa  | 6420 psi | ASTM D882 |

| Thermal Properties    | Metric | English | Comments         |
|-----------------------|--------|---------|------------------|
| Melting Point         | 122 °C | 252 °F  | Dow Method (DSC) |
| Vicat Softening Point | 104 °C | 219 °F  | ASTM D1525       |

| Optical Properties | Metric | English | Comments        |
|--------------------|--------|---------|-----------------|
| Haze               | 10 %   | 10 %    | ASTM D1003      |
| Gloss              | 67 %   | 67 %    | 45°; ASTM D2457 |

## Contact Songhan Plastic Technology Co.,Ltd.

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