

## Marlex® 7109FJ Polyethylene

LINEAR LOW DENSITY POLYETHYLENE (LLDPE)

This linear low density polyethylene is an ethylene-hexene copolymer tailored for blown film applications that require:

- Good stiffness at thin gauges
- Good drawdown
- Excellent processability
- Use alone or in blends with LDPE or HDPE
- Low amounts of antiblocking agent

Typical blown film applications include:

- Industrial liners
- Garment bags
- Mailer bags
- General purpose packaging

| Nominal Resin Properties   | English | SI                      | Method     |
|----------------------------|---------|-------------------------|------------|
| Melt Index, 190 °C/2.16 kg | ---     | 0.9 g/10 min            | ASTM D1238 |
| Density                    | ---     | 0.918 g/cm <sup>3</sup> | ASTM D1505 |
| Slip                       | 1000    | 1000                    | ---        |
| Antiblock                  | 2500    | 2500                    | ---        |
| Process Aid                | Yes     | Yes                     | ---        |

| Nominal Blown Film Properties at 1 mil <sup>1</sup> | English   | SI        | Method     |
|-----------------------------------------------------|-----------|-----------|------------|
| Haze                                                | 19 %      | 19 %      | ASTM D1003 |
| Gloss, 60°                                          | 65        | 65        | ASTM D2457 |
| COF                                                 | 0.2       | 0.2       | ASTM D1894 |
| Dart                                                | ---       | 280 g/mil | ASTM D1709 |
| Elmendorf Tear MD                                   | ---       | 400 g/mil | ASTM D1922 |
| Elmendorf Tear TD                                   | ---       | 700 g/mil | ASTM D1922 |
| Tensile Strength at Break MD                        | 4400 psi  | 30 MPa    | ASTM D882  |
| Tensile Strength at Break TD                        | 2900 psi  | 20 MPa    | ASTM D882  |
| Tensile Elongation at Break MD                      | 450 %     | 450 %     | ASTM D882  |
| Tensile Elongation at Break TD                      | 600 %     | 600 %     | ASTM D882  |
| 1 % Secant Modulus MD                               | 32000 psi | 221 MPa   | ASTM D882  |
| 1 % Secant Modulus TD                               | 39000 psi | 228 MPa   | ASTM D882  |

1. Produced on 3.5 in extruder, 30:1 L/D, 8 in die, 80 mil die gap, 2.5:1 BUR, 440 °F melt temperature

