

# ExxonMobil® HD 7960.13

Product Description: HD 7960.13 is a high molecular weight HDPE blown film resin. Films made from HD 7960.13 exhibit excellent impact and toughness properties, as well as high stiffness. HD 7960.13 is particularly recommended for films less than 0.5 mil in thickness.

| Physical Properties  | Metric                                                | English                                               | Comments          |
|----------------------|-------------------------------------------------------|-------------------------------------------------------|-------------------|
| Density              | 0.952 g/cc                                            | 0.0344 lb/in <sup>3</sup>                             | ExxonMobil Method |
| Melt Flow            | 0.60 g/10 min<br>@Load 2.16 kg,<br>Temperature 190 °C | 0.60 g/10 min<br>@Load 4.76 lb,<br>Temperature 374 °F | ExxonMobil Method |
| High Load Melt Index | 10 g/10 min<br>@Load 21.6 kg,<br>Temperature 190 °C   | 10 g/10 min<br>@Load 47.6 lb,<br>Temperature 374 °F   | ASTM D1238        |

| Mechanical Properties              | Metric        | English    | Comments    |
|------------------------------------|---------------|------------|-------------|
| Film Tensile Strength at Yield, MD | 37.9 MPa      | 5500 psi   | ASTM D882   |
| Film Tensile Strength at Yield, TD | 33.1 MPa      | 4800 psi   | ASTM D882   |
| Film Elongation at Break, MD       | 270 %         | 270 %      | ASTM D882   |
| Film Elongation at Break, TD       | 380 %         | 380 %      | ASTM D882   |
| Elmendorf Tear Strength MD         | 7.0 g         | 7.0 g      | ASTM D1922  |
| Elmendorf Tear Strength TD         | 30 g          | 30 g       | ASTM D1922  |
| Dart Drop                          | 23.6 g/micron | 600 g/mil  | ASTM D1709  |
| Dart Drop Test                     | 300 g         | 0.662 lb   | ASTM D1709A |
| Film Tensile Strength at Break, MD | 82.7 MPa      | 12000 psi  | ASTM D882   |
| Film Tensile Strength at Break, TD | 68.9 MPa      | 10000 psi  | ASTM D882   |
| 1% Secant Modulus, MD              | 1030 MPa      | 150000 psi | ASTM D882   |
| 1% Secant Modulus, TD              | 1100 MPa      | 160000 psi | ASTM D882   |

| Thermal Properties | Metric | English | Comments                                    |
|--------------------|--------|---------|---------------------------------------------|
| Melting Point      | 131 °C | 267 °F  | Peak Melting Temperature; ExxonMobil Method |