

# ExxonMobil™ LLDPE LL 6301 Series Molding

## Linear Low Density Polyethylene Resin

### Product Description

LL 6301 series are medium density LLDPE grades, with a relatively high molecular weight, resulting in molded articles which are very tough and exhibit excellent environmental stress cracking resistance. When compared to LDPE grades of equivalent density, LL 6301 grades exhibits a higher heat deflection temperature and a significantly greater resistance to long term creep.

### General

|                           |                                                                                                                                                                  |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Availability <sup>1</sup> | <ul style="list-style-type: none"> <li>Africa &amp; Middle East</li> <li>Asia Pacific</li> <li>Europe</li> </ul>                                                 |
| Additive                  | <ul style="list-style-type: none"> <li>LL 6301XR Molding: Thermal Stabilizer: Yes</li> <li>LL 6301RQ Molding: Thermal Stabilizer: Yes</li> </ul>                 |
| Applications              | <ul style="list-style-type: none"> <li>Caps</li> <li>Housewares</li> <li>Threaded Closures</li> <li>Compounding (RQ version)</li> <li>Technical Parts</li> </ul> |
| Revision Date             | <ul style="list-style-type: none"> <li>03/01/2013</li> </ul>                                                                                                     |

| Resin Properties           | Typical Value (English) | Typical Value (SI)      | Test Based On     |
|----------------------------|-------------------------|-------------------------|-------------------|
| Density                    | 0.936 g/cm <sup>3</sup> | 0.936 g/cm <sup>3</sup> | ExxonMobil Method |
| Melt Index (190°C/2.16 kg) | 5.0 g/10 min            | 5.0 g/10 min            | ASTM D1238        |
| Peak Melting Temperature   | 257 °F                  | 125 °C                  | ExxonMobil Method |

| Thermal                     | Typical Value (English) | Typical Value (SI) | Test Based On |
|-----------------------------|-------------------------|--------------------|---------------|
| Vicat Softening Temperature | 234 °F                  | 112 °C             | ISO 306       |

| Molded Properties                                                 | Typical Value (English) | Typical Value (SI) | Test Based On   |
|-------------------------------------------------------------------|-------------------------|--------------------|-----------------|
| Tensile Stress at Yield                                           | 2000 psi                | 14 MPa             | ISO 527-2/1A/50 |
| Tensile Strain at Yield                                           | 20 %                    | 20 %               | ISO 527-2/1A/50 |
| Tensile Strain at Break                                           | > 100 %                 | > 100 %            | ISO 527-2/1A/50 |
| Flexural Modulus                                                  | 64000 psi               | 440 MPa            | ISO 178         |
| Environmental Stress-Crack Resistance<br>122°F (50°C), 10% Igepal | 40 hr                   | 40 hr              | ASTM D1693      |

| Impact                       | Typical Value (English)  | Typical Value (SI)   | Test Based On |
|------------------------------|--------------------------|----------------------|---------------|
| Notched Izod Impact Strength | 24 ft-lb/in <sup>2</sup> | 50 kJ/m <sup>2</sup> | ISO 180/1A    |

### Additional Information

The molded properties were measured on 4 mm (157.5 mil) thick injection molded specimen based on ISO 1872-2. ESCR was measured on 2 mm (78.7 mil) thick compression molded plate.

### Legal Statement

This product is not intended for use in medical applications and should not be used in any such applications.

Contact your ExxonMobil Chemical Customer Service Representative for potential food contact application compliance (e.g. FDA, EU, HPFB).

### Notes

Typical properties: these are not to be construed as specifications.

<sup>1</sup> Product may not be available in one or more countries in the identified Availability regions. Please contact your Sales Representative for complete Country Availability.



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For additional technical, sales and order assistance: [www.exxonmobilchemical.com/ContactUs](http://www.exxonmobilchemical.com/ContactUs)

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