

## Product Datasheet



# 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 6301RQ Molding: Thermal Stabilizer: Yes</li> <li>LL 6301XR 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> |
| Form(s)                   | <ul style="list-style-type: none"> <li>LL 6301XR Molding: Pellets</li> <li>LL 6301RQ Molding: Powder</li> </ul>                                                  |
| Revision Date             | 04/01/2017                                                                                                                                                       |

| 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> | ASTM D1505        |
| Melt Index (190°C/2.16 kg) | 5.0 g/10 min            | 5.0 g/10 min            | ExxonMobil Method |
| Peak Melting Temperature   | 257 °F                  | 125 °C                  | ExxonMobil Method |

| Thermal                     | Typical Value (English) | Typical Value (SI) | Test Based On |
|-----------------------------|-------------------------|--------------------|---------------|
| Vicat Softening Temperature | 237 °F                  | 114 °C             | ISO 306       |

| Molded Properties                                                 | Typical Value (English) | Typical Value (SI) | Test Based On   |
|-------------------------------------------------------------------|-------------------------|--------------------|-----------------|
| Tensile Stress at Yield                                           | 2200 psi                | 15 MPa             | ISO 527-2/1A/50 |
| Tensile Strain at Yield                                           | 10 %                    | 10 %               | ISO 527-2/1A/50 |
| Tensile Strain at Break                                           | > 100 %                 | > 100 %            | ISO 527-2/1A/50 |
| Flexural Modulus                                                  | 67000 psi               | 470 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 | 15 ft-lb/in <sup>2</sup> | 32 kJ/m <sup>2</sup> | ISO 180/1A    |

### Legal Statement

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

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

### Processing Statement

Molded properties were measured on 2 mm (78.7 mil) thick compression molded plaques prepared based on ASTM D 4703 Procedure C (177C, 15C/min): ESCR 2 mm plaques, notch condition B.

### 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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**ExxonMobil****ExxonMobil™ LLDPE LL 6301 Series Molding**  
Linear Low Density Polyethylene ResinFor additional technical, sales and order assistance: [www.exxonmobilchemical.com/ContactUs](http://www.exxonmobilchemical.com/ContactUs)

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