

## LyondellBasell Petrothene® GA818073 Linear Low Density Polyethylene

Categories: [Polymer](#); [Thermoplastic](#); [Polyethylene \(PE\)](#); [LLDPE](#); [Linear Low Density Polyethylene \(LLDPE\)](#); [Extrusion Grade](#)

**Material Notes:** Applications  
PETROTHENE GA 818-073 offers the high environmental stress crack resistance characteristics of linear low density polyethylene with the processing properties needed for blowmolding and extrusion applications. The broad molecular weight distribution of GA 818-073 combines good melt strength with a significantly reduced tendency to melt fracture, two drawbacks common to conventional fractional melt index LLDPE resins. Applications for this resin include beverage and drip irrigation tubing, squeeze tubes and bottles for pharmaceutical and personal care product packaging, drum liners, highway traffic channellizers and other large, blow molded parts.

### Processing Techniques

Processing conditions can only be recommended when the type of equipment and end use applications are known. For further suggestions, please contact your Equistar sales representative.

### Regulatory Status

GA 818-073 meets the requirements of the Food and Drug Administration regulation 21 CFR 177.1520. This regulation allows the use of this olefin polymer in "...articles or components of articles intended for use in contact with food." Specific limitations or conditions of use may apply. Contact your Equistar sales representative for more information.

This product is from the former Equistar product line.

**Vendors:** No vendors are listed for this material. Please [click here](#) if you are a supplier and would like information on how to add your listing to this material.

| Physical Properties | Metric        | English                    | Comments   |
|---------------------|---------------|----------------------------|------------|
| Density             | 0.9205 g/cc   | 0.03326 lb/in <sup>3</sup> | ASTM D1505 |
| ESCR, Bottle        | >= 1000 hour  | >= 1000 hour               | ASTM D2561 |
| Melt Flow           | 0.75 g/10 min | 0.75 g/10 min              | ASTM D1238 |

| Mechanical Properties     | Metric    | English  | Comments                    |
|---------------------------|-----------|----------|-----------------------------|
| Hardness, Shore D         | 51        | 51       | ASTM D2240                  |
| Tensile Strength at Break | 15.0 MPa  | 2170 psi | Type IV Specimen; ASTM D638 |
| Elongation at Break       | >= 700 %  | >= 700 % | Type IV Specimen; ASTM D638 |
| Flexural Modulus          | 0.276 GPa | 40.0 ksi | ASTM D790                   |

| Thermal Properties                          | Metric      | English     | Comments                                               |
|---------------------------------------------|-------------|-------------|--------------------------------------------------------|
| Deflection Temperature at 0.46 MPa (66 psi) | 48.0 °C     | 118 °F      | ASTM D648                                              |
| Vicat Softening Point                       | 88.0 °C     | 190 °F      | ASTM D1525                                             |
| Brittleness Temperature                     | <= -42.0 °C | <= -43.6 °F | F <sub>50</sub> , Injection molded specimen; ASTM D746 |

Some of the values displayed above may have been converted from their original units and/or rounded in order to display the information in a consistent format. Users requiring more precise data for scientific or engineering calculations can click on the property value to see the original value as well as raw conversions to equivalent units. We advise that you only use the original value or one of its raw conversions in your calculations to minimize rounding error. We also ask that you refer to MatWeb's [terms of use](#) regarding this information. [Click here](#) to view all the property values for this datasheet as they were originally entered into MatWeb.