

## Technical Data Sheet

### *Polyaxis* EXPLP 8000-31G BLACK



Polyethylene, High Density, Metallocene

#### Product Description

*Polyaxis* LP-8000 is a high density polyethylene intended for the rotational molding industry. This stiff yet tough compound has been used in watercraft with good success.

#### Regulatory Status

For regulatory compliance information, see *Polyaxis* EXPLP 8000-31G BLACK [Product Stewardship Bulletin \(PSB\)](#) and [Safety Data Sheet \(SDS\)](#).

|                   |                            |
|-------------------|----------------------------|
| Status            | Commercial: Active         |
| Availability      | North America              |
| Processing Method | Rotomolding                |
| Forms             | Pellets; Powder            |
| Appearance        | Colors Available           |
| Additive          | Long Term UV-10 Stabilizer |

| Typical Properties                                                                   | Nominal Value | Units             | Test Method |
|--------------------------------------------------------------------------------------|---------------|-------------------|-------------|
| <b>Physical</b>                                                                      |               |                   |             |
| Melt Flow Rate, (190 °C/2.16 kg)                                                     | 3.6           | g/10 min          | ASTM D1238  |
| Density - Specific Gravity                                                           | 0.945         | g/cm <sup>3</sup> | ASTM D792   |
| <b>Mechanical</b>                                                                    |               |                   |             |
| Tensile Strength at Yield, (51 mm/min, Rotational Molded)                            | 22.1          | MPa               | ASTM D638   |
| Environmental Stress Crack Resistance, (Compression Molded, F50, 10% Igepal)         | 6.00          | hr                | ASTM D1693  |
| Flexural Modulus, (Rotational Molded, 1% Secant)                                     | 1000          | MPa               | ASTM D790   |
| Tensile Elongation at Break, (51 mm/min, Rotational Molded)                          | 500           | %                 | ASTM D638   |
| <b>Impact</b>                                                                        |               |                   |             |
| Impact Strength                                                                      |               |                   |             |
| (-40 °C, 3.18 mm, Rotational Molded)                                                 | 88            | J                 | ARM         |
| (-40 °C, 6.35 mm, Rotational Molded)                                                 | >258          | J                 | ARM         |
| <b>Thermal</b>                                                                       |               |                   |             |
| Deflection Temperature Under Load Unannealed (264 psi), (3.18 mm, Rotational Molded) | 39.3          | °C                | ASTM D648   |
| Deflection Temperature Under Load Unannealed (66 psi), (3.18 mm, Rotational Molded)  | 71.1          | °C                | ASTM D648   |

## Notes

These are typical property values not to be construed as specification limits.

## Processing Techniques

Specific recommendations for resin type and processing conditions can only be made when the end use, required properties and fabrication equipment are known.

## Company Information

For further information regarding the LyondellBasell company, please visit <http://www.lyb.com/>.

© LyondellBasell Industries Holdings, B.V. 2018

## Disclaimer

Information in this document is accurate to the best of our knowledge at the date of publication. The document is designed to provide users general information for safe handling, use, processing, storage, transportation, disposal and release and does not constitute any warranty or quality specification, either express or implied, including any warranty of merchantability or fitness for any particular purpose. Users shall determine whether the product is suitable for their use and can be used safely and legally.

In addition to any prohibitions of use specifically noted in this document, LyondellBasell may further prohibit or restrict the sale of its products into certain applications. For further information, please contact a LyondellBasell representative.

## Trademarks

The Trademark referenced within the product name is owned or used by the LyondellBasell family of companies.