

## Technical Data Sheet

### *Polyaxis* LL 8461-35G BLACK EL



Linear Low Density Polyethylene

#### Product Description

*Polyaxis* LL 8461 is a linear low density polyethylene intended for the rotational molding industry. Offers excellent ESCR and toughness.

#### Regulatory Status

For regulatory compliance information, see *Polyaxis* LL 8461-35G BLACK EL [Product Stewardship Bulletin \(PSB\)](#) and [Safety Data Sheet \(SDS\)](#).

|                   |  |
|-------------------|--|
| Status            | Discontinued   |
| Availability      | North America  |
| Processing Method | Rotomolding  |
| Attribute         | Good ESCR (Environmental Stress Cracking Resistance); Good Toughness; Hexene Comonomer; UV Resistant |
| Forms             | Powder   |
| Appearance        | Colors Available   |
| Application       | Agricultural Tanks; Outdoor Applications; Pallets; Septic Tanks                                      |

| Typical Properties  | Nominal Value | Units             | Test Method |
|---|---------------|-------------------|-------------|
| <b>Physical</b>   |               |                   |             |
| Melt Flow Rate, (190 °C/2.16 kg)                          | 3.3           | g/10 min          | ASTM D1238  |
| Density - Specific Gravity                                | 0.938         | g/cm <sup>3</sup> | ASTM D1505  |
| <b>Mechanical</b>   |               |                   |             |
| Tensile Strength at Yield, (50 mm/min, Rotational Molded) | 19.9          | MPa               | ASTM D638   |
| Environmental Stress Crack Resistance                     |               |                   |             |
| (Compression Molded, F50, 100% Igepal)                    | >1000         | hr                | ASTM D1693  |
| (Compression Molded, F50, 10% Igepal)                     | 60.0          | hr                | ASTM D1693  |
| Flexural Modulus, (Rotational Molded, 1% Secant)          | 834           | MPa               | ASTM D790   |
| Tensile Elongation at Break, (Rotational Molded)          | 240           | %                 | ASTM D638   |
| <b>Impact</b>   |               |                   |             |
| Impact Strength   |               |                   |             |
| (-40 °C, 3.18 mm, Rotational Molded)                      | 75            | J                 | ARM         |
| (-40 °C, 6.35 mm, Rotational Molded)                      | >258          | J                 | ARM         |
| <b>Thermal</b>  |               |                   |             |
| Deflection Temperature Under Load Unannealed (264 psi)    | 38.9          | °C                | ASTM D648   |
| Deflection Temperature Under Load Unannealed (66 psi)     | 58.9          | °C                | ASTM D648   |
| Peak Melting Temperature                                  | 126           | °C                | ASTM D3418  |

## 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/>.

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