

## Technical Data Sheet

### *Polyaxis* LL 3940-3420G BLACK



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.

|                          |                                                                                                      |
|--------------------------|------------------------------------------------------------------------------------------------------|
| <b>Processing Method</b> | Rotomolding                                                                                          |
| <b>Attribute</b>         | Good ESCR (Environmental Stress Cracking Resistance); Good Toughness; Hexene Comonomer; UV Resistant |
| <b>Forms</b>             | Powder                                                                                               |
| <b>Appearance</b>        | Colors Available                                                                                     |
| <b>Application</b>       | 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  |