

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.

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| 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 |
|---|----------------------|-------------------|--------------------|
| Physical | | | |
| Melt Flow Rate, (190 °C/2.16 kg) | 3.3 | g/10 min | ASTM D1238 |
| Density - Specific Gravity | 0.938 | g/cm ³ | ASTM D1505 |
| Mechanical | | | |
| 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 |
| Impact | | | |
| Impact Strength | | | |
| (-40 °C, 3.18 mm, Rotational Molded) | 75 | J | ARM |
| (-40 °C, 6.35 mm, Rotational Molded) | >258 | J | ARM |
| Thermal | | | |
| 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 |