

Technical Data Sheet

Polyaxis LL 3940-35G 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.

Regulatory Status

For regulatory compliance information, see Polyaxis LL 3940-35G BLACK [Product Stewardship Bulletin \(PSB\)](#) and [Safety Data Sheet \(SDS\)](#).

Status	Commercial: Active
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
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

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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