

Technical Data Sheet

Polyaxis LL 3940

Linear Low Density Polyethylene
LyondellBasell Industries
Rotomolding

Product Description

PolyAxis LL 3940 is a linear low density polyethylene intended for the rotational molding industry. Offers excellent ESCR and toughness.

General

Features	• Good ESCR (Stress Crack Resist.) • Good Toughness	• Hexene Comonomer • UV Resistant
Uses	• Agricultural Tanks • Outdoor Applications	• Pallets • Septic Tanks
Appearance	• Colors Available	
Forms	• Powder	
Processing Method	• Rotational Molding	

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	0.938	0.936 g/cm ³	ASTM D1505
Melt Mass-Flow Rate (MFR) (190°C/2.16 Kg)	3.3 g/10 min	3.3 g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance (ESCR)			ASTM D1693
10% Igepal, Compression Molded, F50	60.0 hr	60.0 hr	
100% Igepal, Compression Molded, F50	> 1000 hr	> 1000 hr	

Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength ¹ (Yield, Rotational Molded)	2500 psi	17.2 MPa	ASTM D638
Tensile Elongation ² (Yield)	10 %	10 %	ASTM D638
Flexural Modulus - 1% Secant (Rotational Molded)	93000 psi	641 MPa	ASTM D790

Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Impact Strength			ARM
-40°F (-40°C), 0.125 In (3.18 Mm), Rotational Molded	64 ft·lb	87 J	
-40°F (-40°C), 0.250 In (6.35 Mm), Rotational Molded	> 190 ft·lb	> 258 J	

Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
66 Psi (0.45 Mpa), Unannealed	129 °F	53.9 °C	
264 Psi (1.8 Mpa), Unannealed	100 °F	37.8 °C	
Peak Melting Temperature	259 °F	126 °C	ASTM D3418

Notes

¹ 2.0 in/min (50 mm/min)

² 2.0 in/min (51 mm/min)

Notes

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