

Technical Data Sheet

Polyaxis LL 3940-4445G BROWN



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.

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