Technical Data Sheet

LyondellBasell

Polyaxis LLP 3550

Linear Low Density Polyethylene
LyondellBasell Industries
Rotomolding

Product Description			
PolyAxis LLP 3550 is a linear low density polyethylene intended for the rotational molding industry. Offers excellent ESCR and toughness.			
General			
Material Status	• Commercial: Active		
Availability	• North America		
Features	• Good ESCR (Stress Crack Resist.) • Good Toughness	• Hexene Comonomer • UV Resistant	
Uses	• Agricultural Tanks • Outdoor Applications	• Pallets • Septic Tanks	• Toys
Appearance	• Colors Available		
Forms	• Powder		
Processing Method	• Rotational Molding		

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	0.937	0.935 g/cm³	ASTM D1505
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	5.0 g/10 min	5.0 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	> 980 hr	> 980 hr	
Mechanical	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Tensile Strength [1] (Yield, Rotational Molded)	2400 psi	16.5 MPa	ASTM D638
Tensile Elongation [2] (Yield)	20 %	20 %	ASTM D638
Flexural Modulus - 1% Secant (Rotational Molded)	90000 psi	621 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	60 ft·lb	81 J	
-40°F (-40°C), 0.250 in (6.35 mm), Rotational Molded	160 ft·lb	217 J	
Thermal	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Unannealed	122 °F	50.0 °C	
264 psi (1.8 MPa), Unannealed	97.0 °F	36.1 °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.

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.

Product Storage and Handling

- Product should be stored in dry conditions at temperatures below 50°C and protected from UV-light
- Improper storage may bring damage to the packaging and can negatively affects on the quality of this product
- Keep material completely dry for good processing

Company Information

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For further information regarding the LyondellBasell company, please visit http://www.lyb.com/.

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