

Technical Data Sheet

Polyaxis LP 8100

Metallocene High Density Polyethylene
LyondellBasell Industries
Rotomolding

Product Description

PolyAxis LP-8100 is a high density polyethylene intended for the rotational molding industry. This stiff yet tough compound was designed for watercraft products.

General

Additive	• UV Stabilizer
Appearance	• Colors Available
Forms	• Pellets • Powder
Processing Method	• Rotational Molding

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity ¹	0.949	0.947 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 Kg)	5.8 g/10 min	5.8 g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance (ESCR) 10% Igepal, Compression Molded, F50	6.00 hr	6.00 hr	ASTM D1693

Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength ² (Yield, Rotational Molded)	3250 psi	22.4 MPa	ASTM D638
Tensile Elongation ² Break, Rotational Molded	200 %	200 %	ASTM D638
Flexural Modulus - 1% Secant (Rotational Molded)	144000 psi	993 MPa	ASTM D790

Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Impact Strength -40°F (-40°C), 0.125 In (3.18 Mm), Rotational Molded	60 ft·lb	81 J	ARM
-40°F (-40°C), 0.250 In (6.35 Mm), Rotational Molded ³	> 190 ft·lb	> 258 J	

Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load 66 Psi (0.45 Mpa), Unannealed, 0.125 In (3.18 Mm), Rotational Molded	158 °F	70.0 °C	ASTM D648
264 Psi (1.8 Mpa), Unannealed, 0.125 In (3.18 Mm), Rotational Molded	105 °F	40.6 °C	

Notes

¹ Compression Molded

² 2.0 in/min (51 mm/min)

³ Dart Weight 20 lbs

Notes

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