

Technical Data Sheet

Polyaxis CP 813-31

Linear Low Density Polyethylene
LyondellBasell Industries
Rotomolding

Product Description

Polyaxis CP 813-31 is a black general purpose linear low density polyethylene compound offering quick cycles and part to part consistency. Available as pellet or powder.

General

Additive	• Long Term UV-8 Stabilizer: Yes
Features	• Fast Molding Cycle
Uses	• General Purpose • Outdoor Applications
Appearance	• Black
Forms	• Pellets • Powder
Processing Method	• Rotational Molding

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density ¹	0.932 to 0.939 g/cm ³	0.932 to 0.939 g/cm ³	ASTM D1505
Melt Mass-Flow Rate (MFR) (190°C/2.16 Kg)	4.5 to 6.5 g/10 min	4.5 to 6.5 g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance (ESCR)			ASTM D1693
10% Igepal, F50	> 25.0 hr	> 25.0 hr	
100% Igepal, Compression Molded, F50	> 500 hr	> 500 hr	

Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength ² (Yield, Rotational Molded)	2300 psi	15.9 MPa	ASTM D638
Tensile Elongation ²			ASTM D638
Break, Rotational Molded	400 %	400 %	
Flexural Modulus - 1% Secant (Rotational Molded)	84000 psi	579 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	45 ft-lb	61 J	
-40°F (-40°C), 0.250 In (6.35 Mm), Rotational Molded	175 ft-lb	237 J	

Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
66 Psi (0.45 Mpa), Unannealed, Rotational Molded	124 °F	51.1 °C	
264 Psi (1.8 Mpa), Unannealed, Rotational Molded	104 °F	40.0 °C	

Notes

¹ Compression Molded

² 2.0 in/min (51 mm/min)

Notes

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