

Technical Data Sheet



Polyaxis CP 735

Linear Low Density Polyethylene
LyondellBasell Industries
Rotomolding

Product Description

PolyAxis CP 735 is a linear low density polyethylene intended for the rotational molding industry. Offers excellent ESCR and toughness. Good general purpose material and UV resistant.

General

Material Status	• Commercial: Active		
Availability	• North America		
Features	• Good ESCR (Stress Crack Resist.)	• Good Toughness	• UV Resistant
Uses	• General Purpose	• Outdoor Applications	
Appearance	• Black	• Tan	• White
Forms	• Powder		
Processing Method	• Rotational Molding		

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	0.935	0.933 g/cm ³	ASTM D1505
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	6.7 g/10 min	6.7 g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance (ESCR)			ASTM D1693
10% Igepal, F50	50.0 hr	50.0 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)	2610 psi	18.0 MPa	ASTM D638
Flexural Modulus - 1% Secant (Rotational Molded)	100000 psi	690 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	> 50 ft·lb	> 68 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	136 °F	58.0 °C	
264 psi (1.8 MPa), Unannealed	102 °F	38.9 °C	
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating	HB	HB	UL 94

Notes

¹ 2.0 in/min (50 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

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

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