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Technical Data Sheet

Polyaxis HD 4860

High Density Polyethylene
LyondellBasell Industries
Rotomolding

Product Description
PolyAxis HD 4860 is a high density polyethylene intended for the rotational molding industry. Offers outstanding stiffness and processability.

General		
Features	• Good Moldability • Good Stiffness	• Hexene Comonomer • UV Resistant
Uses	• General Purpose • Outdoor Applications	• Safety Guards • Tanks
Appearance	• Colors Available	
Forms	• Powder	
Processing Method	• Rotational Molding	

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	0.948	0.946 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	20.0 hr	20.0 hr	
100% Igepal, Compression Molded, F50	20.0 hr	20.0 hr	
Mechanical	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Tensile Strength [1] (Yield, Rotational Molded)	3200 psi	22.1 MPa	ASTM D638
Tensile Elongation			ASTM D638
Break, Rotational Molded	10 %	10 %	
Flexural Modulus - 1% Secant (Rotational Molded)	150000 psi	1030 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	55 ft·lb	75 J	
-40°f (-40°c), 0.250 In (6.35 Mm), Rotational Molded	> 135 ft·lb	> 183 J	
Thermal	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Deflection Temperature Under Load			ASTM D648
66 Psi (0.45 Mpa), Unannealed	153 °F	67.2 °C	
264 Psi (1.8 Mpa), Unannealed	104 °F	40.0 °C	
Peak Melting Temperature	266 °F	130 °C	ASTM D3418

Notes

[1] 2.0 in/min (51 mm/min)

Notes

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