

Technical Data Sheet



Microthene MP635662

Linear Low Density Polyethylene
LyondellBasell Industries
Engineering Plastics

Product Description

MICROTHENE MP 635-662 is a high flow hexene LLDPE powder for the rotational molding of large hollow objects, including toys, playground equipment, drums and agricultural and chemical storage containers.

MP 635-662 exhibits excellent ESCR, low temperature impact strength and warp resistance. MP 635-662 is a UV-stabilized, 35-mesh powder and is also available in pellet form as PETROTHENE® GA 635-662.

General

Material Status	• Commercial: Active		
Availability	• Asia Pacific • Europe	• Latin America • North America	
Additive	• UV Stabilizer		
Features	• Food Contact Acceptable • Hexene Comonomer • High ESCR (Stress Crack Resist.)	• High Flow • Low Temperature Impact Resistance • UV Resistant	• Warp Resistant
Uses	• Containers	• Drums	• Toys
Forms	• Powder		
Processing Method	• Rotational Molding		

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.935 g/cm ³	0.935 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 D1693A
10% Igepal, Rotational Molded, F50	92.0 hr	92.0 hr	
100% Igepal, Rotational Molded, F50	< 1000 hr	< 1000 hr	
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength ¹			ASTM D638
Yield, 0.125 in (3.18 mm), Rotational Molded	2500 psi	17.2 MPa	
Flexural Modulus - 1% Secant			ASTM D790
0.125 in (3.18 mm), Rotational Molded	87200 psi	601 MPa	
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Low Temperature Impact ²			ARM
-40°F (-40°C), 0.13 in (3.18 mm)	45.0 ft·lb	61.0 J	
-40°F (-40°C), 0.25 in (6.35 mm)	150	150	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Unannealed, Rotational Molded	122 °F	50.0 °C	
264 psi (1.8 MPa), Unannealed, Rotational Molded	95.0 °F	35.0 °C	

Notes

¹ Type IV, 2.0 in/min (51 mm/min)

² Type IV, Rotomolded

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

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- 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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