

Microthene® MP655662

High Density Polyethylene

LyondellBasell Industries

Technical Data

Product Description

Microthene MP655662 is a rotational molding powder that produces items with very smooth inner surface under a wide range of processing conditions. MP655662 can be used to make a variety of rotomolded items including light globes, storage containers, traffic crash barriers, ducting and equipment housings. This resin is also available in pellet form as Petrothene GA655662.

General

Material Status	• Commercial: Active		
Literature ¹	• Processing - Mold Shrink (English) • Processing - Polyolefin Injection Molding Guide (English) • Technical Datasheet (English)		
Search for UL Yellow Card	• LyondellBasell Industries		
Availability	• Asia Pacific • Europe	• North America • South America	
Additive	• UV Stabilizer		
Features	• Good Stiffness • Good UV Resistance	• High Impact Resistance • Low Temperature Impact Resistance	• Warp Resistant
Uses	• Containers	• Housings	• Lighting Diffusers
Agency Ratings	• FDA 21 CFR 177.1520	• NSF Unspecified Rating	
Forms	• Powder		
Processing Method	• Rotational Molding		

Physical	Nominal Value Unit	Test Method
Density	0.945 g/cm ³	ASTM D1505
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	5.0 g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance		ASTM D1693A
10% Igepal, Rotational Molded, F50	10.0 hr	
100% Igepal, Rotational Molded, F50	30.0 hr	

Mechanical	Nominal Value Unit	Test Method
Tensile Strength ³		ASTM D638
Yield, 3.18 mm, Rotational Molded	22.3 MPa	
Flexural Modulus - 1% Secant		ASTM D790
3.18 mm, Rotational Molded	931 MPa	

Impact	Nominal Value Unit	Test Method
ARM Impact		ARM
-40°C, 3.18 mm	54.2 J	
-40°C, 6.35 mm	136 J	

Thermal	Nominal Value Unit	Test Method
Deflection Temperature Under Load		ASTM D648
0.45 MPa, Unannealed, 3.18 mm, Rotational Molded	66.0 °C	
1.8 MPa, Unannealed, 3.18 mm, Rotational Molded	42.0 °C	

Notes

¹ These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

² Typical properties: these are not to be construed as specifications.

³ Type IV, 51 mm/min