

LyondellBasell Microthene® MP655662 High Density Polyethylene (Unverified Data)**

Categories: [Polymer](#); [Thermoplastic](#); [Polyethylene \(PE\)](#); [High Density \(HDPE\)](#); [High Density Polyethylene \(HDPE\)](#); [Rotational Molding Grade](#)

Material Notes: Applications
 MICROTHENE MP 655-662 is a rotational molding powder that produces items with very smooth inner surface under a wide range of processing conditions. MP 655-662 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® GA 655-662.


Processing Techniques
 Specific recommendations for processing MP 655-662 can be made only when the required properties, processing equipment and end use are known.

Physical Properties
 MP 655-662 exhibits excellent impact strength at both room temperature and -40°F. It also has good warp resistance and stiffness.

This product is from the former Equistar product line.

Vendors: No vendors are listed for this material. Please [click here](#) if you are a supplier and would like information on how to add your listing to this material.

Physical Properties	Metric	English	Comments
Density	0.945 g/cc	0.0341 lb/in ³	Compression molded; ASTM D155
ESCR 100% Igepal®	30 hour @Thickness 3.17 mm	30 hour @Thickness 0.125 in	Cond. A, CO-630, Rotomolded, F ₅₀ ; ASTM D1693
ESCR 10% Igepal®	10 hour @Thickness 3.17 mm	10 hour @Thickness 0.125 in	Cond. A, CO-630, Rotomolded, F ₅₀ ; ASTM D1693
Melt Flow	5.0 g/10 min	5.0 g/10 min	Pellets; ASTM D1238

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	20.7 MPa	3000 psi	2"/min, Rotomolded; ASTM D638
Flexural Modulus	0.931 GPa @Thickness 3.17 mm	135 ksi @Thickness 0.125 in	1% Secant Modulus, Rotomolded; ASTM D790
Impact Test 	54.2 J @Thickness 3.17 mm, Temperature -40.0 °C	40.0 ft-lb @Thickness 0.125 in, Temperature -40.0 °F	Rotomolded; ARM STD
	136 J @Thickness 6.35 mm, Temperature -40.0 °C	100 ft-lb @Thickness 0.250 in, Temperature -40.0 °F	Rotomolded; ARM STD

Thermal Properties	Metric	English	Comments
Deflection Temperature at 0.46 MPa (66 psi)	66.0 °C @Thickness 3.17 mm	151 °F @Thickness 0.125 in	Rotomolded; ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	42.0 °C @Thickness 3.17 mm	108 °F @Thickness 0.125 in	Rotomolded; ASTM D648

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