

Technical Data Sheet



Microthene MP643962

Linear Low Density Polyethylene

Product Description

Microthene MP643962 is a linear medium density polyethylene powder selected by customers for rotomolding a variety of objects, including drums, agricultural and chemical storage containers, playground equipment and municipal trash containers. MP643962 is a UV-stabilized, 35-mesh powder and is also available in pellet form as Petrothene GA643962.

Regulatory Status

For regulatory compliance information, see Microthene MP643962 [Product Stewardship Bulletin \(PSB\)](#) and [Safety Data Sheet \(SDS\)](#).

Status	Commercial
Availability	North America
Application	Containers; Drums; Intermediate Bulk Containers; Jerry Cans; Sports, Leisure & Toys
Market	Rigid Packaging
Processing Method	Rotomolding

Typical Properties	Nominal Value	English Units	Nominal Value	SI Units	Test Method
Physical					
Melt Flow Rate, (190 °C/2.16 kg)	3.6	g/10 min	3.6	g/10 min	ASTM D1238
Density, (23 °C)	0.9395	g/cm ³	0.9395	g/cm ³	ASTM D1505
Mechanical					
Flexural Modulus					
(1% Secant)	119000	psi	820	MPa	ASTM D790
(2% Secant)	101000	psi	700	MPa	ASTM D790
Tensile Strength at Yield	2900	psi	20.0	MPa	ASTM D638
Environmental Stress Crack Resistance, F ₅₀ (100% Igepal®, Cond A)	>1000	hr	>1000	hr	ASTM D1693
Impact					
Low Temperature Impact					
1/8" specimen @ -40 °F	54	ft-lbs	73	J	ARM
1/4" specimen @ -40 °F	160	ft-lbs	215	J	ARM
Thermal					
Deflection Temperature Under Load					
(66 psi, Unannealed)	136	°F	58	°C	ASTM D648
(264 psi, Unannealed)	104	°F	40	°C	ASTM D648



Notes

Tensile properties were run with a crosshead speed of 2 inches/min or 50 mm/min.

Igepal® is a registered trademark of Rhodia.

Low Temperature Impact testing was performed according to the Association of Rotational Molders (ARM) International Test Protocol.

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.

Company Information

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

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