

Technical Data Sheet

**Microthene MP564189**

Linear Low Density Polyethylene
LyondellBasell Industries
Engineering Plastics

Product Description

MICROTHENE MP564189 exhibits good stiffness and low temperature toughness. Typical applications include trash cans, industrial containers, housewares and toys. MP564189 is 16 mesh powder and is also available in pellet form Petrothene GA564189.

MP564189 meets the requirements of the Food and Drug Administration 21 CFR 177.1520. This regulation allows the use of this olefin polymer in " ...articles or components or articles intended for use in contact with food." Specific limitations or conditions of use may apply.

General

Material Status	• Commercial: Active		
Availability	• North America		
Features	• Food Contact Acceptable	• Good Stiffness	• Low Temperature Toughness
Uses	• Household Goods	• Industrial Containers	• Toys
Forms	• Powder		
Processing Method	• Injection Molding		

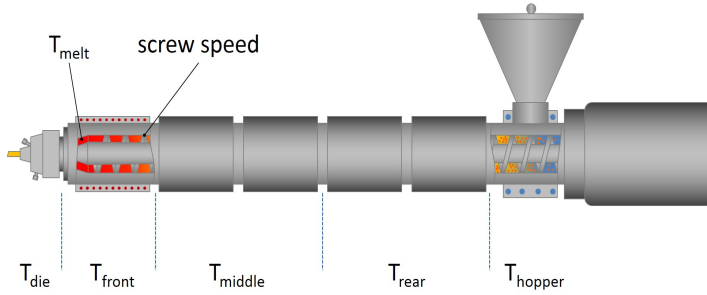
Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.924 g/cm ³	0.924 g/cm ³	ASTM D1505
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	20 g/10 min	20 g/10 min	ASTM D1238
Spiral Flow ^{1, 2}	12.6 in	32.1 cm	Internal Method
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength			ASTM D638
Yield ³	2030 psi	14.0 MPa	
Break	1160 psi	8.00 MPa	
Tensile Elongation ³ (Yield)	12 %	12 %	ASTM D638
Flexural Modulus ⁴			ASTM D790
1% Secant	63800 psi	440 MPa	
2% Secant	55100 psi	380 MPa	
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Durometer Hardness (Shore D)	57	57	ASTM D2240
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Unannealed	113 °F	45.0 °C	
Brittleness Temperature	< -105 °F	< -76.1 °C	ASTM D746
Vicat Softening Temperature	196 °F	91.0 °C	ASTM D1525

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Extrusion	Nominal Value (English)	Nominal Value (SI)
Cylinder Zone 1 Temp.	351 °F	177 °C
Cylinder Zone 2 Temp.	374 °F	190 °C
Cylinder Zone 3 Temp.	399 °F	204 °C
Cylinder Zone 4 Temp.	399 °F	204 °C

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Notes

¹ Melt Temperature: 440°F (227°C), Injection Pressure: 1.00E+3 psi (68.9 bar)

² 0.625 in

³ 20 in/min (510 mm/min)

⁴ 0.50 in/min (13 mm/min)

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

- 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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