

Technical Data Sheet

**Microthene GR52000**

Low Density Polyethylene
LyondellBasell Industries
Engineering Plastics

Product Description

GR52000 are use in a broad range of specialty applications. GR52000 powders combine the unique properties of a polyolefin resin with a small particle size.

General

Material Status	• Commercial: Active		
Availability	• North America		
Uses	• Automotive Applications • Color Concentrates	• Industrial Applications • Structural Parts	
Appearance	• Natural Color		
Forms	• Powder		

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.923 g/cm ³	0.923 g/cm ³	ASTM D1505
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	5.2 g/10 min	5.2 g/10 min	ASTM D1238
Mean Particle Size	115 Microns	115 Microns	
Moisture Content ¹	< 0.10 %	< 0.10 %	
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength (Break)	1800 psi	12.4 MPa	ASTM D638
Tensile Elongation (Break)	550 %	550 %	ASTM D638
Flexural Modulus	40000 psi	276 MPa	ASTM D790
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Durometer Hardness (Shore D)	53	53	ASTM D2240
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Brittleness Temperature	< -105 °F	< -76.1 °C	ASTM D746
Vicat Softening Temperature	207 °F	97.0 °C	ASTM D1525
Peak Melting Temperature	230 °F	110 °C	ASTM D3418

Notes

¹ LYB Method

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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