Technical Data Sheet

# *Microthene* FA70000

High Density Polyethylene

## Product Description

*Microthene* F polyolefin powders are ultra-fine, spherically shaped particles with narrow size distribution suitable for use in a broad range of specialty applications. *Microthene* F powders combine the unique properties of a polyolefin resin with a microfine particle size.

## Regulatory Status

For regulatory compliance information, see *Microthene* FA70000 Product Stewardship Bulletin (PSB) and Safety Data Sheet (SDS).

| | |
|---|---|
| **Status** | Commercial: Active |
| **Availability** | North America |
| **Application** | Automotive Parts; Colour Concentrates; Industrial; Interior Automotive Applications; Structural Parts |
| **Market** | Consumer Products; Flexible Packaging; Healthcare; Industrial, Building & Construction |
| **Processing Method** | Powders |

| Typical Properties | Nominal Value | English Units | Nominal Value | SI Units | Test Method |
|---|---|---|---|---|---|
| **Physical** | | | | | |
| Melt Flow Rate, (190 °C/2.16 kg) | 10 | g/10 min | 10 | g/10 min | ASTM D1238 |
| Density, (23 °C) | 0.952 | g/cm³ | 0.952 | g/cm³ | ASTM D1505 |
| **Mechanical** | | | | | |
| Flexural Modulus | 160000 | psi | 1103 | MPa | ASTM D790 |
| Tensile Strength at Break | 1700 | psi | 11.7 | MPa | ASTM D638 |
| Tensile Elongation at Break | 400 | % | 400 | % | ASTM D638 |
| **Hardness** | | | | | |
| Shore Hardness, (Shore D) | 66 | | 66 | | ASTM D2240 |
| **Thermal** | | | | | |
| Vicat Softening Point | 257.0 | °F | 125.0 | °C | ASTM D1525 |
| Low Temperature Brittleness | <-105 | °F | <-76 | °C | ASTM D746 |
| Peak Melting Point | 273.2 | °F | 134.0 | °C | ASTM D3418 |
| **Additional Information** | | | | | |
| Particle Shape | Spherical | | Spherical | | LYB Method |
| Average Particle Size | 20 | micron | 20 | micron | LYB Method |
| Particle Size Distribution | 5 - 50 | micron | 5 - 50 | micron | LYB Method |
| Moisture Content | <=0.1 | % | <=0.1 | % | LYB Method |

## Notes

These are typical property values not to be construed as specification limits.

## Processing Techniques

The microfine size and spherical shape of *Microthene* F powders facilitate dispersion in aqueous or organic systems.

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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Manufacturer website: https://www.lyondellbasell.com/en/