

# Microthene® F FA70900

High Density Polyethylene

LyondellBasell Industries

## Technical Data

### 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.

### General

|                           |                                                                                                                                                                                                                                            |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Material Status           | <ul style="list-style-type: none"><li>Commercial: Active</li></ul>                                                                                                                                                                         |
| Literature <sup>1</sup>   | <ul style="list-style-type: none"><li><a href="#">Processing - Mold Shrink (English)</a></li><li><a href="#">Processing - Polyolefin Injection Molding Guide (English)</a></li><li><a href="#">Technical Datasheet (English)</a></li></ul> |
| Search for UL Yellow Card | <ul style="list-style-type: none"><li><a href="#">LyondellBasell Industries</a></li></ul>                                                                                                                                                  |
| Availability              | <ul style="list-style-type: none"><li>North America</li></ul>                                                                                                                                                                              |
| Agency Ratings            | <ul style="list-style-type: none"><li>FDA Unspecified Rating</li></ul>                                                                                                                                                                     |
| Forms                     | <ul style="list-style-type: none"><li>Powder</li></ul>                                                                                                                                                                                     |

| Physical                                  | Nominal Value Unit      | Test Method |
|-------------------------------------------|-------------------------|-------------|
| Density                                   | 0.952 g/cm <sup>3</sup> | ASTM D1505  |
| Melt Mass-Flow Rate (MFR) (190°C/2.16 kg) | 10 g/10 min             | ASTM D1238  |
| Average Particle Size                     | 20 µm                   | ETM Malvern |
| Particle Shape                            | Spherical               |             |
| Particle Size Distribution                | 5.0 to 50.0 µm          | ETM Malvern |

| Mechanical                 | Nominal Value Unit | Test Method |
|----------------------------|--------------------|-------------|
| Tensile Strength (Break)   | 11.7 MPa           | ASTM D638   |
| Tensile Elongation (Break) | 400 %              | ASTM D638   |
| Flexural Modulus           | 1100 MPa           | ASTM D790   |

| Hardness                     | Nominal Value Unit | Test Method |
|------------------------------|--------------------|-------------|
| Durometer Hardness (Shore D) | 66                 | ASTM D2240  |

| Thermal                     | Nominal Value Unit | Test Method |
|-----------------------------|--------------------|-------------|
| Brittleness Temperature     | -76.0 °C           | ASTM D746   |
| Vicat Softening Temperature | 125 °C             | ASTM D1525  |
| Melting Temperature         | 134 °C             |             |

| Additional Information   | Nominal Value Unit | Test Method |
|--------------------------|--------------------|-------------|
| Maximum Moisture Content | 0.100              | ETM 156     |

### Notes

<sup>1</sup> These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

<sup>2</sup> Typical properties: these are not to be construed as specifications.