

## Microthene F

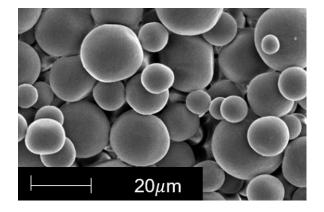
Engineered powder performance

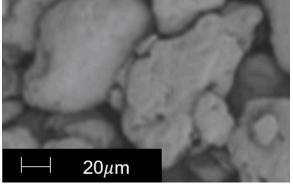


# Innovative powder technology for enhanced performance

At LYB, we believe innovation begins by rethinking what's possible. That belief inspired the creation of *Microthene* F powders, engineered not by grinding or mechanical deformation, but by building them up through chemical processes.

Our proprietary technology forms each granule into a perfectly spherical, ultra-fine particle, with an average diameter under 20 microns. The result is more than just a material — it's exceptional uniformity, optimized performance and reliable consistency in every application.





Microthene F under the microscope

An alternative powder

Microthene F doesn't just meet expectations, it sets a new standard for precision powder technology across a range of demanding applications.

#### **Key product features**

- Ultra-fine particle size: average diameter <20 microns
- Perfectly spherical morphology for enhanced flow and contact
- · Narrow particle size distribution for precision and reproducibility
- · Non-mechanical production method to preserve integrity

## Where performance meets versatility

*Microthene* F products are valued across diverse industries for their size, shape and functionality. Whether enabling superior dispersion in suspended systems or improving process control in composites, these powders support high-precision manufacturing.

#### **Enabling solutions across applications**

#### Suspension & binding systems

 Microthene F fine particle size and controlled surface characteristics support uniform dispersion, vital for effective binding and consistent performance in complex formulations.

#### **Composites & structural materials**

 As a low-shrink additive, Microthene F enhances dimensional stability while maintaining strength. This enables manufacturers to deliver parts that are both accurate and durable.

#### Polymer partitioning

 The unique morphology is effective for dusting tacky polymers, improving flow and handling during processing, while reducing clumping and sticking in storage.



#### Typical applications/ markets

Microthene F supports advanced functionality in:

- Thermoset composites acts as a low-shrink additive to reduce warping
- Rotational molding improves surface finish and mold release
- Wire & cable compounds aids in processing and surface uniformity
- Coatings & inks improves flow and application control across diverse climates
- Rubber and elastomer compounds partitions tacky polymers for easier processing in high-demand manufacturing
- **Filtration systems** ensures consistent particle distribution for residential and commercial water filtration.
- Powder metallurgy enables tighter packing and better sintering control for electronics and engineered parts
- Automotive manufacturing enhances dimensional accuracy in interior, exterior and under-the-hood applications
- Industrial greases and lubricants improves flow and temperature control for greases, white oils and base oils

Grade	Туре	Particle size (µm)	Melt index	Density (g/cm³)
FN 501	LDPE	20 micron	22	0.915
FN 510	LDPE	20 micron	5.2	0.923
FN 519	LDPE	20 micron flow enhanced)	5.2	0.923
FE 532	EVA (9% VA)	20 micron	10	0.926
FA 700	HDPE	20 micron	10	0.952
FA 709	HDPE	20 micron (flow enhanced)	10	0.952

Grades are available in low-density polyethylene (LDPE), high-density polyethylene (HDPE) and ethylene vinyl acetate (EVA).

#### **Driving ever-better performance**

With Microthene F, you gain:

- · A high-performance powder built for consistency
- Materials that support more sustainable, efficient systems
- A solution aligned with our purpose: creating solutions for everyday sustainable living Need something custom? Our experts can help you develop the right solution.

Contact your LYB representative to learn more.

### About us

We are LyondellBasell (LYB) – a leader in the global chemical industry creating solutions for everyday sustainable living. Through advanced technology and focused investments, we are enabling a circular and low carbon economy. Across all we do, we aim to unlock value for our customers, investors and society. As one of the world's largest producers of polymers and a leader in polyolefin technologies, we develop, manufacture and market high-quality and innovative products for applications ranging from sustainable transportation and food safety to clean water and quality healthcare. For more information, please visit <a href="https://www.lyb.com">www.lyb.com</a> or follow <a href="https://www.lyb.com">@LyondellBasell</a> on LinkedIn.

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