

Microthene F

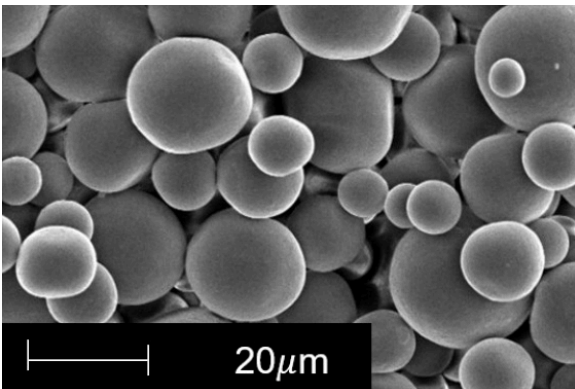
Engineered powder performance



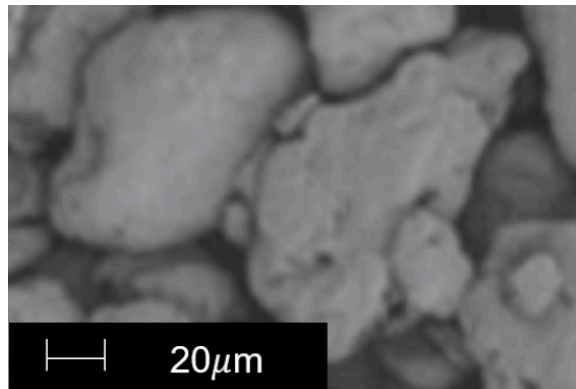
Innovative powder technology for enhanced performance

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	Type	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 www.lyb.com or follow @LyondellBasell on LinkedIn.

Before using a LyondellBasell product, customers and other users should make their own independent determination that the product is suitable for the intended use. They should also ensure that they can use the LyondellBasell product safely and legally. This document does not constitute a warranty, express or implied, including a warranty of merchantability or fitness for a particular purpose. In addition, no immunity under LyondellBasell's or third parties' intellectual property rights shall be implied from this document. No one is authorized to make any warranties, issue any immunities or assume any liabilities on behalf of LyondellBasell except in a writing signed by an authorized LyondellBasell employee. Unless otherwise agreed in writing, the exclusive remedy for all claims is replacement of the product or refund of the purchase price at LyondellBasell's option, and in no event shall LyondellBasell be liable for special, consequential, incidental, punitive or exemplary damages.

Microthene is a trademark owned and/or used by the LyondellBasell family of companies.