

Zonyl™ MP 1100E

PTFE Additive

Product Information

Description

Zonyl™ MP 1100E fluoroadditive is a white, free-flowing, PTFE powder designed for use as an additive in other materials. It can be used at temperatures from -190 °C to 250 °C (-310 °F to 480 °F) and is inert to nearly all industrial chemicals and solvents. It is well suited for use in inks and coatings, where a narrow particle size distribution is desired. It is a good electrical insulator, does not absorb water, and is highly resistant to weathering. Its properties are summarized in **Table 1**.

Zonyl™ MP 1100E can impart:

- Low surface energy
- Improved lubricity and wear in plastics and elastomers
- Improved performance in lubricants under severe conditions
- Improved nonstick and antifriction properties

Zonyl™ MP 1100E tends to form clumps of particles, but it can be de-agglomerated during mixing and blending operations. Agglomerates of the resin are friable, a characteristic that helps in producing an intimate mixture with host materials. As the resin is dispersed in a solvent for particle size measurement, the agglomerates break down and may approach the 0.2 µm particle size.

Typical Applications

Zonyl™ MP 1100E is used as an additive (at approximately 1-3% by weight) in the preparation of offset, gravure, and flexographic printing inks. It improves certain properties, such as rub and slip resistance. It is used in combination with polyethylene waxes to obtain the desired degree of property modification. Due to its small particle size and narrow particle size distribution, Zonyl™ MP 1100E has

been found useful in a variety of coating systems. Typical loadings of 5-20% by weight are used in plastics and elastomers.

- Provides improvements in corrosion inhibition
- Reduces wettability
- Reduces “blocking” in inks
- Improves gloss and surface smoothness

Food Contact Compliance

Products are generally not recommended for food contact. For details and information, please contact your Chemours representative.

Safety Precautions

WARNING! VAPORS CAN BE LIBERATED THAT MAY BE HAZARDOUS IF INHALED.

Before using Zonyl™ fluoroadditives, refer to the Safety Data Sheet and the latest edition of “Guide to the Safe Handling of Fluoropolymer Resins,” published by Plastics Industry Association (www.plasticsindustry.org) or PlasticsEurope (www.plasticseurope.org).

Open and use containers only in well-ventilated areas using local exhaust ventilation (LEV). Vapors and fumes liberated during hot processing of Zonyl™ fluoroadditives should be exhausted completely from the work area. Contamination of tobacco with these polymers must be avoided. Vapors and fumes liberated during hot processing that are not properly exhausted, or from smoking tobacco or cigarettes contaminated with Zonyl™ fluoroadditives, may cause flu-like symptoms, such as chills, fever, and sore throat. This may not occur until several hours after exposure and will typically pass within about 24 hours.

Mixtures with some finely divided metals, such as magnesium or aluminum, can be flammable or explosive under some conditions.

Packaging

Zonyl™ MP 1100E is packaged in 20-kg (44.1-lb) drums. Eight 20-kg drums are packaged on one pallet for ease of shipping, handling, and storage.

Table 1. Typical Property Data for Zonyl™ MP 1100E Fluoroadditive

Property	Test Method	Unit	Value
Average Bulk Density	ASTM D4894	g/L	300
Melting Peak Temperature	ASTM D4894	°C (°F)	325 (617)
Average Particle Size	ASTM D4464	µm	6
Specific Surface Area	ASTM D4567	m ² /g	5-10

Note: Meets ASTM D5675, Group 1, Class 2, Grade 1.
Typical properties are not suitable for specification purposes.

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