

DuPont™ Zonyl® MP1500

PTFE fluoroadditives

Description

DuPont™ Zonyl® MP1500 PTFE fluoroad additive is a free-flowing white powder designed primarily for use as an additive in other materials to impart low-surface energy and other fluoropolymer attributes. Zonyl® MP1500 can improve the wear resistance of the host material and enhance its frictional characteristics. When added to elastomeric compounds, it can provide improved tensile properties and hot tear resistance. Zonyl® MP1500 has also been used alone as a dry lubricant.

Zonyl® MP1500 is inert to nearly all industrial chemicals and solvents. It is a good electrical insulator, does not absorb water, and is highly resistant to weathering. Zonyl® MP1500 can be used at temperatures from -190 to 250°C (-310 to 480°F).

Typical Applications

Zonyl® MP1500 is best compounded into elastomeric formulations by preparing a 50/50 masterbatch with the elastomer. Tear strength, abrasion resistance, and flex life in an elastomeric compound can be significantly improved by the addition of Zonyl® MP1500 at levels of about 10 phr or more. Beneficial effects have been measured with fluoroelastomers, fluorosilicone elastomers, EPDM elastomers, Neoprene elastomers, and SBR elastomers.

Zonyl® MP1500 may be used as a component of articles intended to contact food in compliance with 21 CFR 177.1550 and numerous other FDA regulations. For additional information, see DuPont bulletin H-52475-1.

Sales Specifications (Zonyl® MP1500)

Property	ASTM Test Method	Unit	Value
Color	E313		White
Contamination	WW4120		0
Primary Particle Size		microns	0.20
Average Agglomerate Size* (Volume Basis)	D4464	µm	10-30
Specific Surface Area	D4567	m ² /g	4.6-15.0
Bulk Density	D4895	g/L	225-600

Note: Meets ASTM D5675, Type I, Grade 3.

This product meets Federal Drug Administration (FDA) regulation 21 CFR 177.1550.

* Agglomerates are groupings of Primary Particles. The energy imparted to the agglomerates under typical processing conditions will tend to break the agglomerates apart and reduce the average agglomerate size.

For more information on Zonyl®:

DuPont Fluoroproducts
P.O. Box 80713
Wilmington, DE 19880-0713

www.teflon.com/fluoroadditives
(800) 262-2745

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Typical Property Data (Zonyl® MP1500)

Property	Test Method	Unit	Value
Average Bulk Density	ASTM D4894	g/L	375
Melting Peak Temperature	ASTM D4894	°C °F	330 ±5 626
Nominal Agglomerate Size	Laser Microtrac	µm	20
Specific Surface Area	Nitrogen Adsorption	m²/g	8–12

Packaging

Zonyl® MP1500 is packaged in 60-liter plastic drums with 20-kg (44.0-lb). Eight drums are packaged on one pallet for ease of shipping, handling, and storage.

Freight Classification

Zonyl® MP1500 when shipped by rail or express is classified “Plastic, Synthetic, O.T.L., NOIBN.” Resin shipped by truck is classified “Plastics, Materials Granules.”

Safety Precautions

WARNING!

VAPORS CAN BE LIBERATED THAT MAY BE HAZARDOUS IF INHALED.

Before using Zonyl® MP1500, read the Material Safety Data Sheet and the detailed information in the “Guide to the Safe Handling of Fluoropolymer Resins,” latest edition, published by the Fluoropolymers Division of The Society of the Plastics Industry—available from DuPont.

Open and use containers only in well-ventilated areas using local exhaust ventilation (LEV). Vapors and fumes liberated during hot processing, or from smoking tobacco or cigarettes contaminated with Zonyl® MP1500, may cause flu-like symptoms (chills, fever, sore throat) that may not occur until several hours after exposure and typically pass within 24 hours. Vapors and fumes liberated during hot processing should be exhausted completely from the work area; contamination of tobacco with polymers should be avoided.

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

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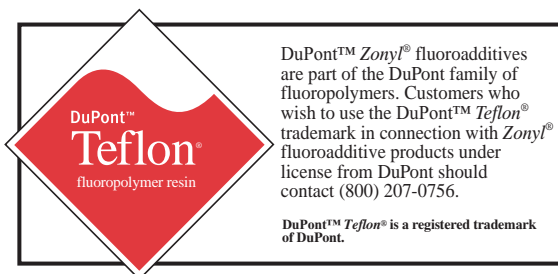
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CAUTION: Do not use in medical applications involving permanent implantation in the human body. For other medical applications, see “DuPont Medical Caution Statement,” H-50102.



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