



Zonyl[®] MP 1600N

fluoroadditive

Description

Zonyl[®] MP 1600N fluoroadditive is a free-flowing white powder designed for use as an additive in other materials to impart low-surface energy and other fluoropolymer attributes. Zonyl[®] MP 1600N may improve the wear resistance of host materials such as thermoplastics or coating materials and enhance their nonstick, lubricity, and frictional characteristics. Added to lubricants, it can enhance performance under severe conditions. Zonyl[®] MP 1600N can be used at temperatures from -190 to 250°C (-310 to 480°F).

Zonyl[®] MP 1600N is generally intended to be used as an additive, although it has been used alone as a dry lubricant. Its characteristics make this material unsuitable as a molding or extrusion resin. It is not a replacement for any of the Teflon[®] high molecular weight fluoropolymer resins in these applications. Typical properties of this material are shown in **Table 1**.

Zonyl[®] MP 1600N 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.

Table 1
Typical Property Data for
Zonyl[®] MP 1600N Fluoroadditive

Property	Test Method	Unit	Value
Average Bulk Density	ASTM D4894	g/L	350
Melting Peak Temperature	ASTM D4894	°C °F	325 ±5 617
Particle Size Distribution (Volume Basis)	Laser Microtrac	µm	Avg. 12
Specific Surface Area	Nitrogen Adsorption	m ² /g	8-12

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

Typical Applications

Zonyl[®] MP 1600N can be used as an additive to improve lubricity, reduce wear, increase gloss, and release and reduce blocking in a variety of applications. Zonyl[®] MP 1600N can provide benefits as an additive in composites, coil coatings, paints, waxes, finishes, inks, polymers, and greases.

Zonyl[®] MP 1600N is made by a special process that allows tighter control of properties than can be achieved for conventionally processed micropowders. This control helps ensure lot-to-lot uniformity and consistent performance.

Zonyl[®] MP 1600N 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.

Zonyl[®] MP 1600N is characterized by a very narrow molecular weight distribution that cannot easily be achieved by conventional micropowders. It contains a minimal amount of acid end groups, so chemical incompatibility in some systems is virtually eliminated. The 8–15 µm particles can be broken down into tiny 0.2 µm primary particles.

The high surface area (8 to 12 m²/g) and the small particle size make Zonyl[®] MP 1600N an excellent thickener for grease. The absence of acid groups helps maintain a constant viscosity of the grease.

Safety Precautions

WARNING!

VAPORS CAN BE LIBERATED THAT MAY BE HAZARDOUS IF INHALED.

Before using Zonyl[®] MP 1600N, 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® MP 1600N, 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.

Packaging

Zonyl® MP 1600N fluoroadditive is packaged in 25-kg (55.1-lb) drums. Eight 25-kg drums are packaged on one pallet for ease of shipping, handling, and storage.

Freight Classification

Zonyl® MP 1600N when shipped by rail or express is classified "Plastic, Synthetic, O.T.L., NOIBN." Resin shipped by truck is classified "Plastics, Materials Granules."

For more information on Zonyl®:

(800) 262-2745

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

Europe

DuPont de Nemours
Int'l SA
DuPont Fluoroproducts
2, chemin du Pavillon
P.O. Box 50
CH-1218 Le Grand-
Saconnex
Geneva, Switzerland
(022) 7175111

Japan and Asia Pacific

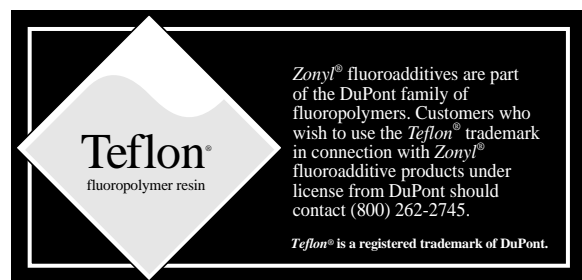
DuPont Mitsui Fluorochemicals
Co., Ltd.
Chiyoda Honsha Building
5-18, Sarugaku-cho 1-chome
Chiyoda-ku, Tokyo 101 Japan
81-3-5281-5872

Canada

DuPont Canada, Inc.
DuPont Fluoroproducts
P.O. Box 2200, Streetsville
7070 Mississauga Road
Mississauga, Ontario,
Canada
L5M 2H3
(905) 821-5194

South America

DuPont do Brasil S/A
Fluoropolymers
Alameda Itapecuru, 506
06454-080-Alphaville
P.O. Box 263
Barueri, Sao Paulo, Brazil
0800-171715
Produtos.Brazil@bra.dupont.com



The information set forth herein is furnished free of charge and is based on technical data that DuPont believes to be reliable. It is intended for use by persons having technical skill, at their own discretion and risk. The handling precaution information contained herein is given with the understanding that those using it will satisfy themselves that their particular conditions of use present no health or safety hazards. Because conditions of product use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information. As with any material, evaluation of any compound under end-use conditions prior to specification is essential. Nothing herein is to be taken as a license to operate under or a recommendation to infringe any patents.

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.



Zonyl®
Only by DuPont