



ZONYL® MP 1500

Description

ZONYL® MP 1500 fluoroadditive is a free-flowing, white powder designed primarily for use as an additive in other materials. ZONYL® MP 1500 may improve the wear resistance of the host material and enhance its frictional characteristics. When used in elastomeric compounds it can provide improved tensile properties and tear resistance. ZONYL® MP 1500 can be used at temperatures from –190° to 250°C (–310° C to 480°F).

ZONYL® MP 1500 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 moulding or extrusion resin. It is therefore not a replacement for any of the ZONYL® fluoropolymer resins in these applications. Figure 1, a scanning electron photomicrograph, shows typical particles of ZONYL® MP 1500, while typical properties of this material are shown in Table 1.

ZONYL® MP 1500 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® MP 1500 does not conform to FDA regulations for use in contact with foods.

Typical Applications

Elastomeric compounds containing up to 50% ZONYL® MP 1500 have been prepared with no fibrillation or agglomeration.

Tear strength, abrasion resistance and flex life in an elastomeric compound can be significantly improved by the addition of ZONYL® MP 1500 at levels of about 10 phr or more.

Beneficial effects have been measured with fluoroelastomers, fluorosilicone elastomers, EPDM elastomers, Neoprene elastomers and SBR elastomers.

Safe Handling

Before using ZONYL® MP 1500, read the Material Safety Data Sheet and the detailed information in the DuPont bulletin “TEFLON® Fluoropolymers Resins – Safety in Handling and Use”.

Fig. 1 ZONYL® MP 1500 Fluoroadditive – scanning electron photomicrograph, 1000 x.

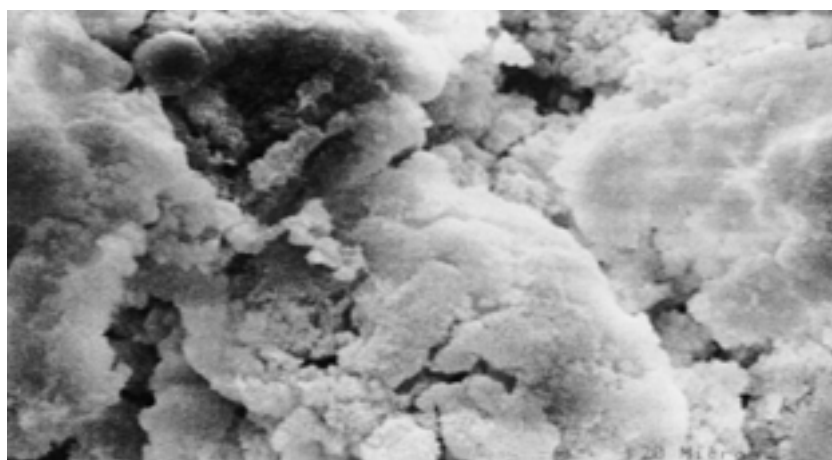


Table 1
Typical Property Data for Zonyl® MP 1500 Fluoroadditive

Property	Test Methode	Units	Value
Average Bulk Density	ASTM D 1457	g/l	350 – 400
Melting Peak Temperature	ASTM D 1457	°C °F	325 ± 10 617 ± 18
Particle Size Distribution (Volume basis)	Laser Microtrac	µm	10% < 10 Avg. 20 90% < 35
Specific Surface Area	Nitrogen Adsorption	m ² /g	11

Open and use containers only in well-ventilated areas. Inhaling fumes liberated during hot processing, or from smoking tobacco or cigarettes contaminated with fluoroadditive, may cause flu-like symptoms (chills, fever, sore throat) that may not occur until several hours after exposure and pass within 36 to 48 hours. Mixtures with some finely divided metals, such as magnesium or aluminium, can be flammable or explosive under some conditions.

Packaging

ZONYL® MP 1500 is packaged in 22.7 kg (50 lb) fibre drums. Eight 22.7 kg drums are packaged on one pallet for ease of shipping, handling, and storage.

Freight Classification

ZONYL® MP 1500 when shipped by rail or express is classified "Plastic, Synthetic, O.T.L., NOIBN." Resin shipped by truck is classified "Plastics, Materials Granules".

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



Zonyl®
Fluoroad additive