Zonyl™ MP 1000
PTFE Additive

Product Information

Description

Zonyl™ MP 1000 fluoroadditive is a white, free-flowing, PTFE powder designed for use as an additive in other materials or as a dry lubricant. 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 a good electrical insulator, does not absorb water, and is highly resistant to weathering. Its properties are summarized in Table 1.

Zonyl™ MP 1000 can impart:

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

Zonyl™ MP 1000 tends to form clumps of particles, but it can be deagglomerated 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

Typical loadings of 5 to 20% by weight are used. Plastics that can benefit in this manner include polyacetals, polyamides, polycarbonates, polyesters, polyimides, polysulfides, and polysulfones; elastomers include acrylates, fluoroelastomers, neoprenes, nitriles, and silicones. Added to high-viscosity specialty lubricants designed for use under high pressure, Zonyl™ MP 1000 may increase lubricity and service life, especially at high temperatures or in corrosive environments. It has been used in silicone, fluorosilicone, and hydrocarbon lubricant bases. Smooth, uniform suspensions can be made using conventional blending methods.

- Provides anti-stick surfaces
- Reduces surface abrasion
- Reduces friction and wear in parts
- Increases lubrication

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.


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 1000 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.

### Table 1. Typical Property Data for Zonyl™ MP 1000 Fluoroadditive

<table>
<thead>
<tr>
<th>Property</th>
<th>Test Method</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Bulk Density</td>
<td>ASTM D4894</td>
<td>g/L</td>
<td>500</td>
</tr>
<tr>
<td>Melting Peak Temperature</td>
<td>ASTM D4894</td>
<td>°C (°F)</td>
<td>325 (617)</td>
</tr>
<tr>
<td>Average Particle Size (Volume Basis)</td>
<td>ASTM D4464</td>
<td>μm</td>
<td>12</td>
</tr>
<tr>
<td>Specific Surface Area</td>
<td>ASTM D4567</td>
<td>m²/g</td>
<td>5–10</td>
</tr>
</tbody>
</table>

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

**CAUTION:** Do not use or resell Chemours materials in medical applications involving implantation in the human body or contact with internal bodily fluids or tissues unless agreed to by Seller in a written agreement covering such use. For further information, please contact your Chemours representative. For medical emergencies, spills, or other critical situations, call (866) 595-1473 within the United States. For those outside of the United States, call (302) 773-2000.

The information set forth herein is furnished free of charge and based on technical data that Chemours 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, Chemours makes no warranties, express or implied, and assumes 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 reproduce, store in a retrieval system, or transmit in any form or by any means electronic, mechanical, photocopying, recording, or otherwise without the prior written permission of Chemours.

For more information, visit teflon.com/zonyl

For sales and technical support contacts, visit teflon.com/industrialglobalsupport

© 2018 The Chemours Company FC, LLC. Zonyl™ is a trademark of The Chemours Company FC, LLC. Chemours® and the Chemours Logo are trademarks of The Chemours Company.