Polymist® XPP 511

polytetrafluoroethylene

Polymist® XPP 511 is a medium MW grade of micronized PTFE with coarse particle size and excellent thermal stability.

It is designed for use in critical, high temperature engineering and high performance polymers to provide improved wear resistance and low coeffcient of friction.

Main features of Polymist® XPP 511 are:

- Better wear resistance
- Increased pressure x velocity (PV) limits
- Reduced friction
- Improved stick-slip response
- Improved mold release

General		
Material Status	• Commercial: Active	
Availability	• Asia Pacific • Europe	• North America
Uses	• Additive	
Appearance	• White	
Forms	• Powder	

Physical	Typical Value	Unit	Test method
Bulk Density	600	g/l	ASTM D4895
Particle Size - Primary	20.0	µm	Internal Method
Specific Surface Area	3.0	m²/g	Internal Method

Additional Information	Typical Value	Unit	Test method
Melt Temperature	325 to 335	°C	ASTM D3418

Processing

Polymist® XPP 511 can be used in a wide variety of different thermoplastics. Typical loadings are 5 - 20% by weight of the compound and the optimum loading is dependent by the resin type and the desired final properties of the part.

Besides its main function as a friction and wear additive, Polymist® XPP 511 micronized powders can be also used at lower concentration to provide the following properties:

- Processing aid to improve compounding and molding conditions
- Mold release agent due to non-stick properties

Polymist® XPP 511 micronized PTFE can be incorporated into thermoplastics by pre-mixing or co-feeding with the base polymer using standard industrial equipment and technology. The compound can also be prepared by first using a masterbatch.

Storage and Handling

- The usual precautions for safe storage and handling of Polymist® XPP 511 should be taken according to material safety documentation and experience. There will be no chemical deterioration of the Polymist® XPP 511 during proper storage.

- Shelf life of Polymist® XPP 511 micronized powders will vary depending upon whether the recommended storage conditions are maintained and whether the material remains free from foreign contamination during storage time (not exposed to dirt, dust, water or other chemicals). The material should remain sealed in the original containers and storage conditions should provide for protection from temperature extremes as well as rain, snow or other wet environments (or such conditions which may damage the storage containers in which the product is stored).

Safety and Toxicology

- Before using PTFE Polymist® XPP 511 micronized powders consult the product Material Safety Data Sheet and follow all label directions and handling precautions.

- As with all PTFE materials, handling and processing should only be carried out in well ventilated areas. Vapor extractor units should be installed above processing equipment. Fumes must not be inhaled and eye and skin contact ought to be avoided. In case of skin contact wash with soap and water. In case of eye contact flush with water immediately and seek medical help. Do not smoke in areas contaminated with powder, vapor or fumes. See Material Safety Data Sheet for detailed advice on waste disposal methods.

Packaging

- Polymist® XPP 511 is packaged in 25 kg non returnable drums. Each drum has one bag liner made of polyethylene resin.

Notes

Typical properties: these are not to be construed as specifications.