

Polymist® F5A

Polytetrafluoroethylene

Solvay Specialty Polymers

Message:

Polymist® F5A a white PTFE micronized powder PTFE micronized powder composed of discrete particles.

Designed for use in critical engineering and high-end performance elastomers and coatings, Polymist® F5A will improved abrasion and tear resistance as well as non-stick properties, mar and abrasion resistance.

Polymist® F5A can also be used in plastics application to improved wear resistance and low coefficient of friction or in lubricants for its thickening effect, lubricity, improved corrosion and temperature resistance.

Main features of Polymist® F5A are:

Improved lubricity, abrasion, scratch and rub resistance

Increased (hot) tear strength

Better flex life

Increased slip and surface lubricity

Reduced blocking

Better chemical resistance

Increased temperature resistance

Gloss retention

General Information			
Uses	Additive		
Appearance	White		
Forms	Powder		
Physical	Nominal Value	Unit	Test Method
Specific surface area	3.0	m ² /g	Internal method
Average Particle Size			Internal method
D50	4.0	µm	Internal method
D99	15	µm	Internal method
Volume density	400	g/l	ASTM D4895
Oily grinding	2.50		NPIRI
Melt Temperature	320 - 330	°C	ASTM D3418
Additional Information	Nominal Value	Unit	Test Method

Processing

Besides its main function as a wear additive, Polymist® F5A can be used at low concentration to improve mold release properties. Internal or open mixers (e.g. Banbury or two-roll mixers) are normally used to allow a good distribution of Polymist® F5A in the elastomeric compound. Additional fillers are normally included with Polymist micronized PTFE during the blending process. The resulting elastomeric composition can then be processed under normal conditions.

Polymist® F5A can also be used as additives in paints and coatings where improvements in non-stick, mar resistance, slip, chemical resistance, and moisture repelling characteristics are desired. Polymist® F5A may be used independently as an additive or in combination with polyethylene waxes. The PTFE content at the surface layer is required in order to impart the properties of PTFE to the coating.

Storage and Handling

The usual precautions for safe storage and handling of Polymist® F5A should be taken according to material safety documentation and experience.

There will be no chemical deterioration of the Polymist® F5A during proper storage.

Shelf life of Polymist® F5A 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 Polymist® F5A PTFE 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® F5A is packaged in 25 kg nonreturnable drums. Each drum has two bag liners made of polyethylene resin.

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