

Polymist® XPP 546 S

polytetrafluoroethylene

Polymist® XPP 546 S is a white PTFE micronized powder composed of discrete particles. Designed for use in critical engineering and high end performance coatings and inks, Polymist® XPP 546 S will improve non-stick properties and mar and abrasion resistance as well as slip and rub resistance.

- Improved abrasion, scratch and rub resistance
- Increased slip and surface lubricity
- Reduced blocking
- Better chemical resistance
- Increased temperature resistance
- Gloss retention

Main Polymist® XPP 546 S features are:

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	400	g/l	ASTM D4895
Particle Size - (D50/D99)	• 4.50 • 15.0	μm	Internal Method
Specific Surface Area	3.0	m ² /g	Internal Method

Additional Information

	Typical Value	Unit	Test method
Grind in Oil - NPIRI	2.50		NPIRI
Melt Temperature	315 to 325	°C	ASTM D3418

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Processing

- Polymist® XPP 546 S is used as additives in paints and coatings where improvements in non-stick, mar resistance, slip, chemical resistance, and moisture repelling characteristics are desired.
- Polymist® XPP 546 S 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, substantially. Extreme environmental demands on greases, such as those experienced in the automotive industry (i.e. wide temperature ranges and heavy loads) can be accommodated by the addition of Polymist® XPP 546 S micronized powders.
- Polymist® XPP 546 S can be dispersed easily at room temperature, and it doesn't agglomerate at temperatures used during formulation or printing. Chemical inertness and improved temperature resistance give ink formulators the opportunity to use a variety of solvents without adverse chemical reactions.
- Elastomeric parts containing Polymist® XPP 546 S will exhibit improved lubricity, increased (hot) tear strength, better flex life and reduced friction and wear. In addition Polymist® XPP 546 S can be used at low concentrations 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® XPP 546 S in the elastomeric compound. Additional fillers are normally included with Polymist® XPP 546 S during the blending process. The resulting elastomeric composition can then be processed under normal conditions.

Storage and Handling

- The usual precautions for safe storage and handling of Polymist® XPP 546 S should be taken according to material safety documentation and experience. There will be no chemical deterioration of the Polymist® XPP 546 S during proper storage.
- Shelf life of Polymist® XPP 546 S 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 546 S 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 546 S is packaged in 25 kg non returnable drums. Each drum has one bag liner made of polyethylene resin.
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