

Algoflon® F 6

polytetrafluoroethylene

Algoflon® F 6 is a fine cut homopolymer PTFE powder that is white, granular and non-free flowing. It is designed for normal compression molding of rods and billets to obtain medium/large items and skived tapes (> 50 µm thick).

Algoflon® F 6 exhibits high bulk density, optimum isotropic behavior and very good mechanical and electrical properties.

Main features of Algoflon® F 6 are:

- Good isotropic properties
- Very good skivability
- Very good surface finishing
- Very good mechanical and electrical properties

General

Material Status	• Commercial: Active
Availability	• Asia Pacific • Europe
Features	• Chemical Resistant
Uses	• Additive • Blending
Agency Ratings	• FDA 21 CFR 177.1550
Appearance	• White
Forms	• Powder
Processing Method	• Compression Molding

Physical

	Typical Value	Unit	Test method
Specific Gravity	2.17		ASTM D792
Average Particle Size ¹	15	µm	Internal Method
Bulk Density	380	g/l	ASTM D4894
Shrinkage - Radial	3.2	%	ASTM D4894

Mechanical

	Typical Value	Unit	Test method
Tensile Strength	42.0	MPa	ASTM D4894
Elongation at Break	370	%	

Electrical

	Typical Value	Unit	Test method
Dielectric Strength	65	kV/mm	ASTM D149

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Additional Information

Processing

- Algoflon® F 6 is processed according to methods generally used for normal compression molding. Prior to use, the powder must be conditioned above 19°C/66°F.
- The processing involves typically two steps: preforming and sintering. Initially the powder is compacted into a preform. This is then sintered using precise sintering (heating and cooling) cycle to take the temperature above the PTFE crystalline melting point to attain the final article. The preforming pressure, dwell time at maximum sintering temperature and cooling rate are all established according to the shape and size of the final item.

Storage and Handling

- Algoflon® PTFE fine cut powders must be stored and handled carefully to achieve defect-free molding. Before use the temperature of the powder must be conditioned above 19°C/66°F (between 21-27°C/70-81°F). Below this temperature the powder is difficult to mold without cracks. Temperatures that are too high should also be avoided to prevent powder lumping and poor flow.
- Storage and handling facilities should be clean since even very small foreign particles can cause defects in finished products. Keep resin drums closed and clean. Good housekeeping and careful handling are essential.

Safety and Toxicology

- Before using Algoflon® PTFE fine cut 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

- Algoflon® F 6 is packaged in 25 kg nonreturnable drums. Each drum contains two bag liners made of polyethylene resin.

Additional Technical Information

- For Material Safety Data Sheet or additional technical information, consult your Solvay sales representative or the website: www.solvayspecialtypolymers.com

Notes

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

¹ Laser diffraction



Safety Data Sheets (SDS) are available by emailing us or contacting your sales representative. Always consult the appropriate SDS before using any of our products.

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