

Algoflon® F 5/S polytetrafluoroethylene

Algoflon® F 5/S is a fine cut homopolymer PTFE powder that is white, granular and non-free flowing powder. It is designed for compounds production and in particular it is recommended for use with high filler content. This material exhibits high bulk density, tensile strength and elongation at break. Black compounds based on Algoflon® F5/S show optimum isotropic behaviour and therefore excellent longitudinal mechanical properties.

Main features of Algoflon® F 5/S are:

- High bulk density
- Very good mechanical properties
- Excellent blendability
- Very good electrical properties
- Isotropic properties

General

Material Status	• Commercial: Active	
Availability	• Asia Pacific	• Europe
Features	• Chemical Resistant	
Uses	• Additive	• Blending
Agency Ratings	• FDA ¹	
Appearance	• White	
Forms	• Powder	

Physical

	Typical Value	Unit	Test method
Specific Gravity	2.16		ASTM D792
Average Particle Size	15	µm	Internal Method
Bulk Density	410	g/l	ASTM D4894
Shrinkage - Radial	3.1	%	ASTM D4894

Mechanical

	Typical Value	Unit	Test method
Tensile Strength	44.0	MPa	ASTM D4894
Elongation at Break	400	%	

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polytetrafluoroethylene

Additional Information

Processing

- Algoflon® F 5/S is used for preparing filled products based on PTFE resins. Prior to use, the powder needs to be conditioned above 19°C/66°F. In order to obtain fully homogeneous compounds, it is necessary to mix Algoflon® F 5/S and filler with high shear systems.
- Temperature must also be controlled (it should not rise above 40°C/104°F) during the mixing process to avoid agglomeration of PTFE and generation of white spots.
- Algoflon® F 5/S based compounds are processed using normal compression moulding as similar to virgin fine cut PTFE.

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. Too high temperatures 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.
- Each drum contains two bags liner made of polyethylene resin. The external bag liner is used only to protect the PTFE powders against external contamination. It is recommended to remove and isolate the external liner before handling and opening the internal layer which is in contact with the PTFE powders.

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 5/S is packaged in 25 kg nonreturnable drums. Each drum has two bag liners made of polyethylene resin.

Additional Technical Information

- For Material Safety Data Sheet or additional technical information consult your Syensqo sales representative.

Notes

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

¹ Please contact your account manager to request a food contact statement.

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www.syensqo.com

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