



Algoflon® D 1612 F

polytetrafluoroethylene

Algoflon® D 1612 F is a white aqueous PTFE dispersion. It is designed for conventional impregnation and cast film processes.

Algoflon® D 1612 F exhibits excellent wetting properties and good shear stability. Algoflon® D 1612 F has very good film forming behaviour and is well-suited for both basecoat and topcoat passes.

Main features of Algoflon® D 1612 F PTFE dispersion include:

- NO polyethoxylated alkylphenols
- Excellent wetting properties
- Good shear stability

General

Material Status	• Commercial: Active
Availability	• Asia Pacific • Europe • North America
Features	• Chemical Resistant • High Heat Resistance • Low Friction
Uses	• Coating Applications • Impregnation Applications • Industrial Castings
Appearance	• White
Forms	• Latex

Physical

	Typical Value	Unit	Test method
Average Particle Size	240	nm	Internal Method
Density	1.51	g/cm ³	ASTM D4441
pH	> 9.0		ASTM D4441

Fill Analysis

	Typical Value	Unit	Test method
Brookfield Viscosity - (20°)	21	mPa·s	ASTM D2196

Additional Information

	Typical Value	Unit	Test method
Non Ionic Surfactant - (on the mixture)	2.8	wt%	ASTM D4441
PTFE Content - (on the mixture)	60.0	wt%	ASTM D4441

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Processing

- Algoflon® D 1612 F is processed according to methods generally used for conventional impregnation and cast film technologies. Generally the procedure involves dip-coating or casting on a substrate and then heating to remove water and surfactant. Depending on the application, sintering above the crystalline melting point of the coated resin may be carried out to obtain the finished articles. Multiple passes may be required to obtain the desired PTFE load and coating thickness.
- Algoflon® D 1612 F can be processed neat or appropriately formulated. Also, it can be used diluted using distilled or deionized water. Formulation, line speed and oven temperature must all be well controlled for optimized features of the coated substrates.

Storage and Handling

- Algoflon® PTFE dispersions must be stored under suitable temperature conditions to ensure prolonged stability. Prolonged exposure to temperatures lower than 5°C must be avoided to prevent irreversible settling. Also, some settling may occur on prolonged standing and/or heat exposure. Therefore, it is strongly recommended to keep the product below 35°C. The optimum storage temperature range is 5-25 °C. If the product remains continuously out of the range 5-35 °C for long times, we suggest bringing it in the range 5-25 °C followed by the re-homogenization under gentle stirring and the removal of eventual agglomerated particles with a filter of 200 µm and 20 µm before the use.
- It is also advisable that the product is homogenized by gentle rolling or stirring once per month and prior to use. Solvay recommends both stirring and filtration for the removal of eventual agglomerate if the product remains in stock for more than three months without gentle stirring.
- Prolonged exposure of the PTFE latex to air could lead to some coagulation at the surface due to water evaporation. For this reason and also to avoid contamination, it is recommended to keep the containers closed when not in use.
- The pH of product must be kept in the range 9.5-11.0 for avoiding bacterial growth that causes odor and scum.
- During handling, violent agitation and pumping must be avoided to minimize agglomeration and foaming formation. It is recommended to convey the dispersion by gravity from its container to the processing station.

Safety and Toxicology

- Before using Algoflon® PTFE dispersions consult the product 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. Venting 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, vapour or fumes.
- See Safety Data Sheet for detailed advice on waste disposal methods.

Packaging

- Algoflon® D 1612 F is packaged in either 30 kg drums or 1500 kg IBC's.

Additional Technical Information

- For Safety Data Sheet or additional technical information consult your Solvay Specialty Polymers sales representative, or contact us by e-mail.
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Notes

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

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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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