Teflon™ ETFE Powder Topcoats

Industrial Coatings

532-6118

Fact Sheet

Ethylene tetrafluoroethylene (ETFE) is a thermoplastic copolymer. This material ETFE 532-6118 is a special filled grade with a very high resistance against water vapour permeation. In an Atlas cell test with boiling water, after 1 year of exposure no blisters, bubbles or delamination could be found, even if only applied in 350µ thickness.

Property Data [1]

Product Code	532-6118
Type	Mid-coat
Colour	Beige
Coverage,[2] m^2/kg (ft^2/lb)	22.0 (110)
Particle size,[3] Average, µm	76 – 96
Bulk Density, g/100 cc	55 – 85
Density, kg/l (lbs/gal)	1.778 (14.84)
Maximum In-Use Temperature, °C (°F)	150 (300)

[1]Physical constants are averages only and are not to be used as product specifications. They may vary up to ±5% of the values shown

[2]Theoretical coverage at dry film thickness (DFT) of 1.0 mils (25µ) based on 100% application efficiency. It does not take normal production losses into account

[3]Particle size refers to the average particle size measured by laser diffraction.

[4]Weight % volatiles based on volatiles with vapor pressure ≥ 0.1 hPa. US VOC (ap) and VOC (le) are listed on the US Safety data sheet, available upon request

Application Method

Coating Preparation	Homogenize powder before opening bag.
Screen	30 mesh (approx. 550 µm) stainless steel or nylon. Insufficient screening can result in application defects.
Application	Use fluidized bed with or without vibration system (depends on powder quantity and particle size of the powder). On flat and/or conductive parts high voltage and higher amperage can be used. On insulated and complex parts amperage should be lowered. In some situations a fixed voltage may be more effective than using an automatic current control setting. The gun settings depend on the gun type and complexity of the part. Recommended general settings: • Product supply: 30%-50% • Air carrier: 3.0 Nm^3/h • Fluidization bed: 0.3 Nm^3/h • Electrode fluidization: flat jet 0.2 Nm^3/h • Amperage: 10 µA • Voltage: 20 kV
Recommended DFT*	Up to 200 µm (8 mil) per coat, total DFT of 650 - 1000 µm (25 - 40 mil)
Recommended Primer	Liquid 699N-129, Powder 532G-6405
Drying (metal temp.)	Powders can be applied dry on wet. Full coating system should be dried before final cure.
Curing (metal temp.)	20-30 minutes at 295-300°C (565-570°F), oven temperature should not be higher than 310°C (590°F).
Multiple coats	Second and subsequent coats can be hot flocked. Terminate by applying a thin layer 532-6210 to get smooth film and avoid any filler to come loose from coating. This last coat may be cured at lower temperature, typically 280°C (535°F)

* Dry Film Thickness (DFT) measured with Dual probe ED10 or FD10 used in combination with the Dualscope MP20, MP40, FMP20 or FMP40

All recommendations are based upon best knowledge

Handling and Storage

- Powders should be stored in closed plastic bags.
- Powders may form lumps under prolonged storage; sieving through a coarse screen will restore the powder
- Powders should be usable for an indefinite period of time without caking or deteriorating if stored at optimal storage conditions: 18°C-27°C (65°F-80°F). Maximum storage temperature 40°C (105°F).
- Transport conditions: 5°C-40°C (40°F-105°F). For safe storage conditions, pls. refer to safety data sheet.

For medical application and development, consult Chemours.

Food Contact

These materials are not intended for use in direct contact with food.

Disposal and Other Considerations

Please follow the guidelines as outlined by SPI (The Society of the Plastics Industry) or PlasticsEurope (Association of Plastics Manufacturers Europe). For detailed information on health and safety, refer to the Safety Data Sheet.

For disposal, please follow these guidelines:

- All treatment, storage, transportation, and disposal of this product and/or container must be in accordance with applicable national and local regulations.
- Do not discharge aqueous dispersions to lakes, streams or waterways.
- Separate solids from liquid by precipitation and decanting or filtering. Dispose of dry solids in a landfill that is permitted, licensed or registered to manage industrial solid waste. Discharge liquid filtrate to a wastewater treatment system.
- Incinerate only if incinerator operates at 800°C or higher and is capable of scrubbing out hydrogen fluoride and other acidic combustion products.
- Industrial fluoropolymer waste containing additives such as solvents, primers or thinners must be regarded as special waste. Companies should contact their local waste disposal authorities for details of the relevant waste disposal regulations.
- Empty containers should preferably be cleaned and recycled. If this is not possible, the containers should be punctured or otherwise destroyed before disposal.

For more information on Chemours Nonstick coatings: www.chemours.com or www.teflon.com

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