



Teflon™ ETFE Powder Topcoats

Industrial Coatings

532-6310, 532-6314

Fact Sheet

Ethylene tetrafluoroethylene (ETFE) is a thermoplastic copolymer. These materials are extremely tough, abrasion-resistant, and have excellent chemical resistance. ETFE is also an excellent electrical insulator and has good nonstick and low friction properties. The 532-631x product line is designed for high-build topcoats, has outstanding resistance to heat, and is specially formulated to resist sagging in thick films.

Property Data

Properties ^a	532-6310	532-6314
Type	Topcoat	Midcoat
Color	Clear	Green
Coverage, m ² /kg (ft ² /gal) ^b	22.0 (110)	22.0 (110)
Particle Size, Average, μm ^c	76-96	76-96
Bulk Density, g/100 cc	55-85	55-85
Density, kg/L (lb/gal)	1.70 (14.22)	1.70 (14.22)
Maximum In-Use Temperature, °C (°F)	150 (300)	150 (300)

^aPhysical constants are averages only and not to be used as product specifications. They may vary up to +5% of the values shown.

^bTheoretical coverage at dry film thickness (DFT) of 25 μm (1.0 mil) based on 100% application efficiency. It does not take normal production losses into account.

^cParticle size refers to the average particle size measured by laser diffraction.

Application Method

Coating Preparation	Homogenize powder before opening bag.
Filtering	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 /hr ■ Fluidization bed: 0.3 nm ³ /hr ■ Electrode fluidization: Flat jet 0.2 nm ³ /hr ■ Amperage: 10 μA ■ Voltage: 60 kV
Recommended DFT*	Up to 250 μm (9.8 mil) per coat
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 min at 270-290 °C (520-555 °F). Prolonged exposure at or above the maximum bake temperature can cause brown discoloration, polymer sagging, and blistering.
Multiple Coats	Second and subsequent coats can be hot flocked. It may be necessary to decrease the application voltage after the first coat to avoid the formation of pits on the coating surface. These pits are caused by excessive charge and build. The molten ETFE flows well initially, but the rate of flow decreases with increasing time. Insufficient dwell time in the molten state can result in a film with pinholes. If encountered, this condition can be corrected by re-baking the part. Apply clear topcoat (powder or liquid) as final layer.

*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: 18–27 °C (65–80 °F). Maximum storage temperature 40 °C (105 °F).
- Transport conditions: 5–40 °C (40–105 °F). For safe storage conditions, please refer to Safety Data Sheet (SDS).

For medical application and development, consult Chemours.

Food Contact

This product, when used in combination with another layer compliant with food legislations, is designed to be used in direct contact with food. Applied according to the application method and instructions in this Fact Sheet, the fully cured system will comply with U.S. FDA food contact regulations at temperatures up to 121 °C (250 °F). Please note that topcoats, intermediate coats, and primers must all comply for the system to be FDA conforming.

ETFE-based coatings are not compliant with European food legislations.

The above is only valid on condition that the product is applied: according to the information outlined in the application method section of this Fact Sheet, on substrates that are suitable for use in food contact applications, in combination with the above recommended Chemours primers, and presuming appropriate processing by the coater/appliator following the Good Manufacturing Practices Regulation (EC) n°2023/2006/EC.

Any changes or variations from application method indicated in this Fact Sheet for food contact applications shall be assessed prior to its use.

For detailed regulatory compliance information and/or any potential regulatory restrictions on the use of this (primer, midcoat, topcoat) product within one of the corresponding industrial finishes coating systems from Chemours, we refer you to the U.S. FDA and/or EU compliance documentation from Chemours for the specific coating system utilizing this product, as well as the technical advice included in this product Fact Sheet. For details and information, please contact your Chemours representative.

Disposal and Other Considerations

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

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 (1475 °F) 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 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.

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C-11694 (9/18)