Teflon™ ETFE Powder Primer

Industrial Coatings

532-6405, 532-6405A

Fact Sheet

ETFE has inherently superior adhesion when compared to most other fluoropolymers, and has been used without a primer in a variety of applications. However, the ETFE primer approximately doubles the adhesive strength of the bond. ETFE powder primer could provide good adhesion to substrate like stainless steel, carbon steel, Aluminium, etc.

Property Data

Properties[a]	532-6405	532-6405A
Color	Green	Green
Coverage,[b] m^2/kg (ft^2/lb)	22.0 (110)	22.1 (111)
Particle size,[c] Average, µm	38 - 72	30 - 70
Bulk Density, g/100 cc	50 - 80	50 - 80
Density, kg/l (lbs/gal)	1.75 (14.62)	1.75 (14.63)
Maximum In-Use Temperature, °C (°F)	150 (300)	150 (300)

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

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

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

Application Method

Substrate	Carbon steel, stainless steel, aluminium, aluminized steel, other suitable substrate. Elements of impurity can have a reverse impact on quality of the coated article. Pre-treatments, which withstand the curing temperature, are suitable. The part to be coated shall be of design and degree of workmanship such as to be suitable for powder spray application.
Surface Preparation	Apply over a clean, roughened surface. (Ra 3~5 µm for thin film, Ra 10-15um for >600µm high build)
Coating Preparation	Homogenize powder before opening bag.
Filtering	80-100 mesh (approx. 178-150 µm) stainless steel or nylon. Insufficient screening can result in application defects.
Application	• The coated part must be well grounded. • Use fluidized hopper to feed the powder to the spray gun. • On flat and/or conductive parts high voltage and higher amperage can be used: • On insulated and complex parts, Voltage & amperage should be lowered significantly. • The actual gun settings highly depend on the gun type and the complexity of the part. It should be adjusted based on trial results. The given settings are indicative for Gema Optiflex (Optistar) electrostatic gun on duct application: Product supply (output):15%-20% for 532-6405; 25%~35% for 532-6405A • Air carrier: 2.5~3.5 Nm^3/h • Fluidization bed air pressure: 1.5~2.5 Nm^3/h • Electrode fluidization: flat jet 0.5 Nm^3/h • Amperage: 10~15 µA • Voltage: 40~50 KV for primer • The actual spray gun settings highly depend on the gun quality & maintenance condition. Highly recommended to use the “multiple coats spray model” for subsequent topcoats. Too much voltage setting might create “repulsion” issue. Coater should be able to adjust the settings based on trial result & powder quality.
Recommended Topcoat	ETFE powder 532-6118, 532-62xx, 532-63xx, 532-64xx
Recommended DFT*	Primer: 25 - 50µm (1.0-2.0mil). The effective thickness should vary depending on the depth of blast profile. Avoid excessive thickness, which can lead to intercoat adhesion failure& rough surface.
Primer drying	Baking 30 min at 300-310°C (metal temperature).
Curing (Metal Temp.)	See Topcoat Fact Sheet.

*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.

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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 is not intended for use in direct contact with food.

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 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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