Teflon™ Powder One Coat/Primer

Industrial Coatings

532G-1003

Fact Sheet

532G-1003 powder coating is a unique blend of fluoropolymers and other resins, such that each individual particle contains the proper blend of ingredients. 532G-1003 has superior toughness, coupled with properties from our tough liquid coatings, excellent corrosion resistance, and good dry lubrication. A major advantage of the powder form is that it has no VOC emissions.

Property Data

Properties[a]	532G-1003
Color	Black
Molecular Weight	Low
Melt Flow Rate	High
Coverage, m^2/kg (ft^2/gal)[b]	30 (146)
Particle Size Average, µm[c]	30–48
Bulk Density, g/100 cc	40–60
Density, kg/L (lb/gal)	1.35 (11.27)
Maximum In-Use Temperature, °C (°F)	150 (300) continuous use and 177 (350) intermittent use

[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 25 µm (1.0 mil) 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

Coating Preparation	Screen powder through 60 mesh (approx. 250 µm) stainless steel or nylon. Insufficient screening can result in application defects.
Application	Use conventional industrial electrostatic powder spray equipment with a voltage between 60–80 kV or enough to maintain particle charge, yet prevent excess film builds. Excessive powder builds may lead to blistering or yield rough films after baking. 532G-1003 fluidizes easily and flows smoothly. 532G-1003 was not designed for fluidized bed application. However, for a specific kind of part, and with some experimentation, fluidized bed can be a viable technique. Preheat part to 127-150 °C (260-300 °F). Higher temperatures will result in rough films. "Hot flocking" can also be used to apply 532G-1003, as long as the part to be coated is sufficiently massive to hold heat. Use of same preheat temperatures as above. Use adequate ventilation.
Recommended DFT*	20–38 µm (0.8–1.0 mil) per coat
Drying (Metal Temp.)	Powders can be applied dry on wet. Full coating system should be dried before final cure.
Curing (Metal Temp.)	The recommended bake for this product is 10 min at 204 °C (400 °F). At 204 °C (400 °F), the binder is cross-linked. Do not exceed 288 °C (550 °F) bake temperature or film decomposition begins. Staged baking at 150 °C (300 °F) for 10 min, then 204 °C (400 °F) for 10 min has been shown to improve smoothness.
Repair	Use sandpaper to smooth out the imperfection and touch up with a spray of 532G-1003 powder. Bake 10 min at 260 °C (400 °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.

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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 approved for food contact applications.

Disposal and Other Considerations

Please follow the guidelines as outlined by The Society of the Plastics Industry (SPI) 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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