



# Teflon™ Water-Based Primer

## Industrial Coatings

# 850G-204

## Fact Sheet

850G-204 acid primer one coat green is generally used as a primer for other polytetrafluoroethylene (PTFE)-based topcoats. It can also be used as a primer for perfluoroalkoxy (PFA) and fluorinated propylene (FEP) topcoats applied in thin films.

### Property Data

Properties <sup>a</sup>	850G-204
Color	Green
Coverage, m <sup>2</sup> /kg (m <sup>2</sup> /L) (ft <sup>2</sup> /gal) <sup>b</sup>	8.83 (12.27) (500)
Viscosity, cP <sup>c</sup>	25-500
Volume Solids, %	28.8-32.8
Weight Solids, % <sup>d</sup>	45.4-47.4
Density, kg/L (lb/gal)	1.39 (11.58)
Maximum In-Use Temperature, °C (°F)	260 (500)
Flash Point, SETA Closed Cup, °C (°F)	None

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

<sup>b</sup>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.

<sup>c</sup>Brookfield RVT (Measured with spindle 2 at 20 rpm/25 °C [77 °F])

<sup>d</sup>Weight Solids (Measured 30 min x 105 °C [221 °F] + 15 min x 380 °C [716 °F])

### Application Method

Substrate	Glass, ceramics, stainless steel, carbon steel, aluminum
Surface Preparation	Degreasing (chemical or thermal cleaning), grit blasting (recommended profile: Ra 3-4 µm/0.1-0.2 mil)
Coating Preparation	Bring the material to room temperature. Mix 30 min or more. Set the mixer speed as such that a strong vortex is appearing. The use of an axial flow impeller is recommended (e.g., a propeller blade impeller). Its size should be 10-12 cm for 5 kg packaging and 17-20 cm for 20 kg packaging. Typically, the rotational speed would be in the range of 30-60 rpm.
Filtering	150 mesh (approx. 100 µm) stainless steel or nylon
Application	Spray on. Reduced pressure gun or HVLP Nozzle: 0.8-1.2 mm Air pressure: 2.0-3.0 bar
Recommended DFT*	One coat: 13-18 µm (0.5-0.7 mil)
Recommended Topcoat	851G-line, 852G-line, 856G-line, 857G-line, 858G-line
Drying (Metal Temp.)	10 min at 230-260 °C (446-500 °F). Drying direct after application of the primer increases the color uniformity of the coating.
Curing (Metal Temp.)	Curing depends on whether the product is used as a primer or one coat finish. For a one coat finish, the metal temperature during baking must be 400 °C (752 °F) for 10 min. If used as a primer, bake at a metal temperature of 232 °C (450 °F) for 15 min and then 288 °C (550 °F) for 3 min. See Topcoat Fact Sheet for additional curing information, but never bake system lower than 375 °C (707 °F).
Cleanup	Water
Thinner/Additive	Deionized water

\*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

- Refrigerated storage (4 °C [40 °F]) is recommended and will allow for 12 months of storage shelf life. When this is not possible, the following is an indication of shelf life: 27 °C (80 °F)-2 weeks, 16 °C (60 °F)-4 weeks.
- Irreversible coagulation will occur at temperatures above 27 °C (80 °F) or if the product freezes. Unrefrigerated 850G-204 acid primer may show evolution of gas and pressure buildup. Use caution when opening containers. Increases in viscosity over time are common and can be reversed to a point by adding deionized or distilled water.
- Roll for 30 min at 30 rpm once per month.
- Water-based product; protect from freezing.
- 850G-204 is a pre-mixed acid primer. Face shield and neoprene gloves and apron should be worn during this procedure and at all times when handling acidic products. To neutralize acid primer, move the material to a larger, open-neck container and SLOWLY add solid (powder or granular) sodium sulfite (Na<sub>2</sub>SO<sub>3</sub>, available through any chemical supply house) to the liquid product, stirring constantly to ensure the sodium sulfite is well mixed into the product. The chemical reaction will cause heat to be given off. For green products, the color of the liquid will turn from dark to light green. Continue adding sodium sulfite and stirring until the neutralization is complete (no further color change or heat generation). This indicates sufficient sodium sulfite has been added. It is better to add too much rather than too little. **REMEMBER:** This product, before neutralization, is very acidic and can cause burns to skin or eyes. **DO NOT** perform the neutralization in the original narrow-neck plastic container, as it is difficult to mix thoroughly or prevent rapid generation of fumes and bubbling over from occurring.

For medical application and development, consult Chemours.

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## 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 ([www.plasticsindustry.org](http://www.plasticsindustry.org)) or PlasticsEurope ([www.plasticseurope.org](http://www.plasticseurope.org)). 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 (1472 °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.

For more information, visit [teflon.com/industrial](http://teflon.com/industrial)

For sales and technical support contacts, visit [teflon.com/industrialglobalsupport](http://teflon.com/industrialglobalsupport)

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