



# Teflon™ Acid Primers

## Industrial Coatings

850G-300, 850G-314, 850G-321

### Fact Sheet

850G-3XX are acid primers with exceptional properties. By opposition to any other primers, 850G-3xx does not contain any other polymer than PTFE and the adhesion on the substrate results from a chemical reaction of the acid accelerator with the metal. This results in an exceptional tolerance to less good substrate preparation (cleaning and gritblasting) and to excessive curing (too high temperature and/or too long time). In addition, acid primers have showed better corrosion protection of the metallic substrate. Those products are not intended for use in direct contact with food. There exist also applications where 850G-3xx are used as one-coat, without topcoat.

#### Property Data <sup>1</sup>

Product Code	850G-300	850G-314	850G-321
Color	Clear	Green	Gray
Coverage, <sup>2</sup> m <sup>2</sup> /kg (m <sup>2</sup> /L) (ft <sup>2</sup> /gal)	7.75 (10.14) (414)	8.40 (12.01) (489)	8.55 (12.23) (498)
Viscosity, <sup>3</sup> centipoises	50 – 500*	20 – 230*	20 – 250*
Volume Solids, %	23.5 – 27.5	28.1 – 32.1	28.5 – 32.5
Weight Solids, <sup>4</sup> %	41.5 – 43.5	50.6 – 52.6	51.2 – 53.2
Density, kg/l (lbs/gal)	1.31 (10.92)	1.43 (11.92)	1.43 (11.92)
VOC content, U.S. lb/gal (g/L) (less exempt)	0.480 (57.5)	0.495 (55.0)	0.449 (53.9)
Maximum In-Use Temperature, °C (°F)	260 (500)	260 (500)	260 (500)
Flash Point, SETA closed cup, °C (°F)	None	None	None

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

<sup>2</sup>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

<sup>3</sup>Brookfield RVT (Measured with spindle 2 at 20 RPM/25°C)

<sup>4</sup>Weight Solids (Measured 30'x105°C+15'x380°C)

\* Viscosity - Note that these values are typical of release viscosity, but that these products typically increase to ~500 cps after 1 week. The viscosity will decrease to normal application limits with the addition of the 850-7799 acid accelerator.

#### Application Method

Substrate	Glass, ceramics, stainless steel, carbon steel, aluminum
Surface Preparation	Degreasing (chemical or thermal cleaning), grit blasting (recommended Ra= 3-4 µm)
Mix well before use	Bring the material to room temperature. Mix 30 minutes 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 the 5kg packaging and 17-20 cm for the 20kg packaging. Typically the rotational speed would be in the range of 30-60 rpm.
Filtering	150 mesh ( approx. 100µm ) stainless steel
Application	Spray on. Reduced pressure gun or HVLP. Nozzle: 0.8-1.2mm Air pressure: 2.0-3.0 bar
Recommended DFT*	5 - 10 µm
Drying	10 min. at 230-260°C Drying direct after application of the primer increases the color uniformity of the coating.
Recommended Topcoats	851G-line, 852G-line, 856G-line, 857G-line, 858G-line
Curing (Metal Temperature)	See topcoats but never bake lower than 400°C, preferable higher, up to 430°C for good substrate and in ter coat adhesion.
Clean-up	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**

- Additive: 850G-3XX primer requires addition of 850-7799:

850-7799	850G-3XX
32-35 g	100 g
34-40 ml	100 ml

850-7799 should be added to the primer (and not the primer added to the 850-7799) slowly while stirring. Keep mixing for 15 minutes. 850-7799 is strongly acidic and should be handled with proper care.

- Rolling once a month (15 min at 30 rpm) will be beneficial to the product stability and will reduce the settling.
- Roll before use and bring to room temperature – it will facilitate the mixing operation recommended here above before filtering and spray.
- Storage life is 12 months at room 18°C-27°C (65°F- 80°F). Maximum storage temperature 40°C (105°F) if not mixed with 850-7799.
- Transport conditions: 5°C-40°C (40°F-105°F). For safe storage conditions, pls. refer to safety data sheet.
- Water-based product, protect from freezing.

850G-300, 850G-314 and 850G-321 are acid primers. 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 assure 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 and no more 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 since it is difficult to mix thoroughly or prevent rapid generation of fumes and bubbling over from occurring.

For medical application and development, consult Chemours.

**Food Contact**

This coating is 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](http://www.chemours.com) or [www.teflon.com](http://www.teflon.com)**

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