



Teflon™ Waterbased PTFE Topcoats

Industrial Coatings

851G-214, 851G-221, 851G-224, 851G-255

Fact Sheet

851G-214, 851G-221, 851G-224 and 851G-255 Topcoat Finishes offer high heat resistance and extremely low coefficient of friction. These topcoats are best used for dry film lubrication and nonstick applications.

Property Data ¹

Product Code	851G-214	851G-221	851G-224	851G-255
Color	Green	Gray	Green	Black
Closest RAL	-	-	-	-
Coverage, ² ft ² /gal (m ² /kg)	398 (8.8)	458 (9.3)	451 (9.5)	433 (9.7)
Viscosity, ³ centipoises	300 – 600	300 – 600	300 – 600	300 – 600
Volume Solids, %	23.9 – 25.7	27.5 – 29.3	27.3 – 29.1	26.5 – 28.4
Weight Solids, ⁴ %	42.2 – 45.2	45.1 – 48.1	45.0 – 48.0	40.9 – 43.9
Density, kg/l (lbs/gal)	11.1 (1.3)	11.3 (1.35)	11.1 (1.3)	10.5 (1.25)
VOC content, Europe, ⁵ %				
Maximum In-Use Temperature, °C (°F)	260 (500)	260 (500)	260 (500)	260 (500)
Flash Point, SETA closed cup, °C (°F)	None	None	None	None

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

²Theoretical 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

³Brookfield RVT (internal method based on ASTM D2196 or equivalent) (Measured with spindle 1 at 20 RPM@25°C).

⁴Weight Solids (internal method based on ASTM D2369), %, Measured 30°x105°C+6°x430°C

⁵Weight % volatiles based on volatiles with vapor pressure ≥ 0.1 hPa

Application Method

Substrate	Any metal substrate except high copper containing alloys
Primer	See primer fact sheets for application parameters.
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	100 mesh (approx. 150 µm) stainless steel or nylon
Application	Spray on. Reduced pressure gun or Conventional or HVLP. Nozzle: 0.8-1.2mm Air pressure: 2.0-3.0 bar
Recommended DFT*	851G-214: 13–38 µm (0.5–1.5 mil) DFT per coat to a maximum of 76 µm (3 mil). High-build topcoats: 851G-221, 851G-224, 851G-255: 20–76 µm (0.8–3.0 mil) DFT per coat to a maximum of 205 µm (8 mil)
Curing (metal temp.)	For a Single Coat: 30 min. at 725 °F (385 °C) or 5 min. at 800 °F (427 °C) For Multiple Coats: <ul style="list-style-type: none"> • Use high-build products 851G-221, 851G-224, 851G-255 to apply films thicker than 51–76 µm (2–3 mil). • Preheating the piece at 120–140 °F (49–60 °C) will help dry the film before baking to prevent popping or cracking. • Bake each intermediate coat at 600 °F (316 °C) for 5–10 min. Cool. Repeat until desired film build is reached. • Bake the last coat at 750 °F (399 °C) for 15 min.
Clean up	Water
Thinner	Deionised water

* Dry Film Thickness (DFT) measured with Dual probe ED10 or FD10 used in combination with the Dualscope MP20 or MP40 E-S

All recommendations are based upon best knowledge

Handling and Storage

- Rolling once a month (15 min. at 30rpm) 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 temperature (18°C-24°C)
- Waterbased product, protect from freezing

For medical application and development, consult Chemours.

Food Contact

The 851N-line of Teflon® PTFE DO NOT comply with FDA regulations governing components of coatings for direct food contact.

Disposal and Other Considerations

Please follow the guidelines as outlined by [SPI](#) (The Society of the Plastics Industry) or [APME](#) (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 or www.teflon.com

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