

DuPont™ 851G-214, 851G-221, 851G-224 and 851G-255 PTFE Topcoats

Industrial Nonstick Coatings

Product Information

DuPont™ 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

Product Code	851G-214	851G-221	851G-224	851G-255
Properties¹				
Color	Green	Gray	Green	Black
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, %	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)
Maximum In-Use Temperature, °C (°F)	260 (500)	260 (500)	260 (500)	260 (500)
Shipping Class	+100L	-100L	+100L	+100L
Food Contact ⁴	NO	NO	NO	NO

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

² 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

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

⁴ See Food Contact section



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Application Method – Spray On

Substrate	Any metal substrate except high copper containing alloys
Substrate Preparation – Primer	Primer Apply primer over clean and roughened surface. See primer fact sheets for application parameters.
Coating Preparation	Bring coating to room temperature, roll or agitate gently, but thoroughly.
Filtering	Strain through 100 mesh (approx. 150 µ) stainless steel screen.
Application	Use conventional industrial spray equipment. Agitate during use of sprayed from a pressure pot. Manual or Automatic Spray.
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 Temperature)	<i>For a Single Coat:</i> <ul style="list-style-type: none">• 30 min. at 725 °F (385 °C) or• 5 min. at 800 °F (427 °C) <i>For Multiple Coats:</i> <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/Additive	Water



Handling and Storage

- Shelf life is approximately 12 months at room temperature (65°–75 °F [18°–24 °C]).
- Waterbased product, protect from freezing.
- Roll for 30 min. at 30 rpm once per month. If material looks settled, then additional time, 1–2 hours of rolling may be required.
- Material may be exposed briefly to temperatures outside the suggested temperature range without harm. In such cases, check product properties before extensive use.
- For medical application and development, please consult DuPont.

For detailed information on health and safety, refer to the Material Safety Data Sheet and the latest edition of “The Guide to the Safe Handling of Fluoropolymer Resins,” published by The Society of the Plastics Industry, Inc. (www.fluoropolymers.org) or by PlasticsEurope (www.plasticseurope.org).

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 these disposal guidelines as outlined in “The Guide to the Safe Handling of Fluoropolymer Resins,” (available at www.fluoropolymers.org for download):

- 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
DuPont Industrial Nonstick Coatings, please visit
www.teflon.com/industrialglobalsupport

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CAUTION: Do not use DuPont materials in medical applications involving implantation in the human body or contact with internal body fluids or tissues unless the material has been provided from DuPont under a written contract that is consistent with DuPont policy regarding medical applications and expressly acknowledges the contemplated use. For further information, please contact your DuPont representative. You may also visit www.teflon.com/industrial to download a copy of the DuPont POLICY Regarding Medical Applications H-50103 and DuPont CAUTION Regarding Medical Applications H-50102.



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