



Teflon®

Nonstick & Industrial Coatings

852-201 and 852-202 Teflon® PTFE Clear Topcoats

Description

These *Teflon*® PTFE topcoats were formulated to provide the advantages of PTFE: excellent release with low coefficient of friction and high temperature resistance. The 852-line of *Teflon*® PTFE topcoats are normally used with 851-204 and 850-300 primers.

FDA Status

Teflon® PTFE 852-201 complies with FDA regulations in 21.CFR governing components of coatings for direct food contact when applied according to fact sheet instructions. Primers must also comply for the system to be FDA conforming.

Teflon® PTFE 852-202 does not comply with FDA regulations governing components of coatings for direct food contact.

**Table 1
 Typical Properties**

Product Code	852-201 Food Contact	852-202 Hi-Build
Color	Clear	Clear
% Weight Solids	49.0	45.6
% Volume Solids	29.2	28.1
Coverage, ft ² /gal* (m ² /L)*	469 11.1	450 10.5
Viscosity, cP	450–800	400–500
Maximum Continuous Use Temperature, °C (°F)	260 (500)	260 (500)

* Theoretical coverage at 25 µm (1 mil), assuming 100% spray efficiency.

These figures are averages and may vary.

Application

Bring coating to room temperature. Roll or agitate gently but thoroughly until contents are homogeneous. Do not use a “lightening mixer” or similar type of mixer.

Strain through 100-mesh stainless steel screen.

See “Applying *Teflon*® Coatings” fact sheet.

Surface Preparation

Apply appropriate primer over clean, grit-blasted surface, per instruction for the primer. See fact sheet for the primer and fact sheet on application. A color-uniforming coat of *Teflon*® 851-line PTFE topcoat may be applied and forced dry 15 min. at 315°C (600°F) before applying the PTFE clear topcoat.

Film Thickness

For final DFT of 25.6 µm (1.0 mil) or less, use a single coat of *Teflon*® PTFE 852-201.

For DFT of 25.4–76 µm (1.0–3.0 mil) DFT, use *Teflon*® PTFE 852-202 in multiple coats of 20–25 µm (0.8–1.0 mil) each, follow cure procedures below for multiple coats.

Bake

All temperatures refer to metal temperature. Force dry before the bake will help prevent popping and/or cracking. After the wet film is air or force dried, it is milky white in color but will become a transparent film after cure.

Single Topcoat

Force dry at 66–93°C (150–200°F).

Bake 30 min. at 385°C (725°F).

Multiple Coats

Initial: Force dry at 66–93°C (150–200°F)
 Bake 5-10 min. at 316°C (600°F)

Final: Force dry at 66–93°C (150–200°F)
 Bake 15 min. at 400°C (750°F)

Storage and Stability

At normal room temperature, 18–24°C (65–75°F), the product has a shelf life of at least 18 months.

Do not allow product to freeze.

Material may be exposed briefly to temperatures outside the suggested temperature range without harm. In such cases, check product and properties before extensive use.

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Safety

Follow normal industrial safety practices for handling and applying *Teflon*[®] products. Industrial experience has clearly shown *Teflon*[®] materials can be processed and used at elevated temperatures without hazard providing adequate ventilation is used. Ventilation should be available at baking temperatures of 275°C (525°F) and above. Before using *Teflon*[®], read the Material Safety Data Sheet (MSDS) and the detailed information in the "Guide to the Safe Handling of Fluoropolymer Resins," latest edition, published by the Fluoropolymers Division of The Society of the Plastics Industry.

When grit-blasting *Teflon*[®] finishes off aluminum or magnesium surfaces, the possibility of explosion exists if the fines are allowed to heat up. Good house-keeping practices, keeping the residue wet, and keeping the ventilation and dust collection systems in good working order reduces this risk.

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CAUTION: Do not use in medical applications involving permanent implantation in the human body. For other medical applications, see "DuPont Medical Caution Statement," H-50102.



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