



Teflon®

Nonstick & Industrial Coatings

Teflon® Clear Aqueous PFA 857-210

Description

Teflon® 857-210 is an aqueous suspension of PFA (with dispersing agents) for use on parts that may not be easily powder coated, such as parts with acute angles or parts requiring a thinner coating than a powder can provide. It also can be used as a topcoat for PFA powder coats to provide a smoother surface. Refer to **Table 1** for physical property data.

FDA Status

Teflon® 857-210 complies with FDA regulations in 21 CFR governing components of coatings for direct food contact when applied according to Fact Sheet instructions.

Table 1
Teflon® Clear Aqueous PFA
Typical Properties

	857-210
Color	Clear
% Solids, weight	35.7
volume	20.9
Coverage, sq m/L at 25 µm	8.2
sq ft/gal at 1 mil	336
Maximum Use Temperature	
Continuous, °C (°F)	260 (500)

Note: These numbers are averages and may vary.

Application

1. Bring to room temperature and roll or agitate thoroughly until contents are homogeneous.
2. Strain through 100-mesh stainless steel screen.
3. Use conventional industrial spray equipment.

Better results are usually obtained with a wet spray application.

Teflon® is a registered trademark of DuPont.

Surface Preparation

Apply a primer such as *Teflon*® 420-703 over a clean and roughened surface. Refer to the Fact Sheet on Application and to the particular primer Fact Sheet.

Film Thickness

Apply *Teflon*® 857-210 at 20–30 µm (0.8–1.2 mil) dry film thickness per coat over air-dried or force-dried primer.

Total film builds up to 75 µm (3 mil) are possible with multiple coats.

If wetting problems occur in subsequent coats, a small amount (1%) of isopropanol may be added. This will also increase viscosity.

Bake

First Coat: 5 or 10 min at 400°C (750°F)

Subsequent Coats: 15 min at 370°C (700°F)

Bakes of 426°C (800°F) will reduce any brownish cast to the coating.

Repair

Re-baking 30–60 min at 345–370°C (650–700°F) may permit sufficient flow to eliminate the damaged area. Otherwise:

1. Remove blistering or other damage with #400–#600 sandpaper.
2. Clean surface thoroughly with xylene or alcohol, allow to dry completely.
3. Apply *Teflon*® 857-210 to touch up the damaged area.
4. Re-bake following normal multiple-coat procedures.

Storage and Stability

Teflon[®] 857-210 is stable for at least 18 months when stored at normal room temperature of 18–24°C (65–75°F). Settling may occur, and is normal. *Teflon*[®] 857-210 can be remixed easily by rolling or stirring.

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 housekeeping practices, keeping the residue wet, and keeping the ventilation and dust collection systems in good working order reduces this risk.

For more information on *Teflon*[®] coatings:

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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.



Teflon[®]

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