

DuPont[™] Teflon®

Industrial Coatings

Teflon[®] S Coatings 954-201, 954-203 and 954-407

Description

These *Teflon*[®] single-coat, nonstick finishes are formulated primarily for chemical and corrosion resistance, with low temperature curing requirements.

FDA Status

The *Teflon*[®] S 954-200 system does not comply with FDA regulations governing components of coatings for direct food contact.

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Table 1 Typical Properties			
Product Code	954-201	954-203	954-407
Color	Green	Black	Flat Black
Weight Solids, %	39.4	33.3	36.6
Volume Solids, %	26.1	24.1	25.3
Density, lb/gal (kg/L)	8.8 1.06	8.2 0.99	8.4 1.00
Coverage, ft²/gal*	418	387	406
(m²/L)*	10.4	9.6	10.1
Viscosity, (cP)	100–650	150–450	200–550
Maximum Use Temperature, °C (°F)	Continuous: 150 (300) Intermittent: 165 (325)		

Note: These figures are averages and may vary.

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

Application

Roll or agitate with a propeller-type mixer until contents are homogeneous.

Strain through 150-mesh wire screen or cheese cloth.

Use conventional industrial spray equipment.

Manual or Automatic Spray: No reduction required. If lower viscosity is desired, reduce with MEK or toluene.

See "Applying Teflon® Coatings" fact sheet.

Surface Preparation

Apply over clean, roughened surface. Any residual oil on the surface will affect the color of the cured film and will adversely affect adhesion.

Corrosion resistance is improved by applying over phosphated steel.

Film Thickness

13-25 µm (0.5-1.0 mil) DFT

Products are recoatable and may be applied in multiple coats to a maximum DFT of 30 μ m (1.2 mil). No special intercoat surface preparation is required.

Cure

All temperatures refer to metal temperature.

Air or force dry 1-5 min. to drive off volatile substances and excess water.

Bake: 10 min. at 163°C (325°F) *or* 5 min. at 177°C (350°F)

Storage and Stability

Shelf life is at least 18 months when stored at normal room temperature, $18^{\circ}-24^{\circ}C(65^{\circ}-75^{\circ}F)$.

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 $275^{\circ}C$ ($525^{\circ}F$) 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.



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