

Teflon™ Water-Based FEP Topcoats

Industrial Coatings

856G-300, 856G-303 and 856G-304

Fact Sheet

FEP liquid topcoats designed to provide non-stick, chemical, and corrosion resistance. FEP melt-flows to form a film of very low porosity, which is a natural choice for release applications with low abrasion. Pigmented layers applied as a midcoat do further improve permeation resistance of the coating system.

Property Data

Properties ^a	856G-300	856G-303	856G-304
Color	Clear	Black	Green
Closest RAL	_	9004	6017
Coverage, m²/kg (m²/L) (ft²/gal)b	8.45 (11.23) (458)	7.99 (10.35) (422)	7.74 (10.50) (428)
Viscosity, cP ^c	500-1000	700-1100	300-800
Volume Solids, %	27.6-28.6	25.4-26.4	25.7-26.7
Weight Solids, %d	43.2-46.2	40.9-43.9	43.4-46.4
Density, kg/L (lb/gal)	1.329 (11.1)	1.295 (10.8)	1.356 (11.4)
VOC Content, Europe, g/kge	143.0	167.9	143.2
Maximum In-Use Temperature, °C (°F)	205 (400)	205 (400)	205 (400)
Flash Point, SETA Closed Cup, °C (°F)	43 (109)	57 (135)	46 (115)

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

Application Method

Coating Preparation	Gently mix 15 min or more until contents are homogeneous. Set the mixer speed so that a vortex appears while avoiding air entrapment. We recommend the use of an axial flow impeller. Insufficient mixing can result in application defects.
Filtering	200 mesh (approx. 75 µm) stainless steel or nylon
Application	Reduced pressure (RP), conventional, or HVLP gun. Nozzle: 0.8–1.2 mm. Atomizing air pressure: 2–3 bar (30–45 psi). The settings highly depend on the gun type and coating viscosity.
Recommended DFT*	Max. 12 µm (0.5 mil) per coat. It is recommended to apply minimum two coats.
Recommended Primer	Primers not approved for use in food contact applications: 850G-3XX series (not available in EMEA), 850G-204 (not available in EMEA and not EU REACH-compliant)
Drying (Metal Temp.)	10–15 min at 105–150 °C (220–300 °F)
Curing (Metal Temp.)	20 min at 380–390 °C (720–730 °F) at least for the first coat. Next layers can also be cured 30 min or longer at 340 °C (650 °F). Keep a low delta between air and metal temperature to avoid additional stress on the coating.
Additional Long Bake	Up to 90 min at $330-340$ °C ($620-640$ °F) can improve coating properties, such as inter-coat adhesion, smoothness, and permeation and abrasion resistance.
Cleanup	Water
Thinner/Additive	Deionized water

*Dry Film Thickness (DFT) measured with Dual probe ED10 or FD10 used in combination with the Dualscope MP20, MP40, FMP20, or FMP40 All recommendations are based upon best knowledge.



bTheoretical coverage at dry film thickness (DFT) of 25 µm (1.0 mill) based on 100% application efficiency. It does not take normal production losses into account.

[°]Brookfield RVT (Measured with spindle 2 at 20 rpm/25 °C [77 °F])

 $^{^{\}rm d}$ Weight Solids (Measured 30 min x 105 $^{\rm o}$ C [221 $^{\rm o}$ F] + 15 min x 380 $^{\rm o}$ C [716 $^{\rm o}$ F])

^{*}Weight % volatiles based on volatiles with vapor pressure ≥ 0.1 hPa. U.S. VOC (ap) and VOC (le) are listed on the U.S. Safety Data Sheet (SDS), available upon request.

Handling and Storage

- Gently mix (15 min at 30 rpm) before use.
- Shelf life is 12 months at optimal storage conditions: 18-27 °C (65-80 °F). Maximum storage temperature: 40 °C (105 °F).
- Transport conditions: 5-40 °C (40-105 °F). For safe storage conditions, please refer to the Safety Data Sheet (SDS).
- Water-based product; protect from freezing.

For medical application and development, please consult Chemours.

Food Contact

The coatings systems outlined (FEP topcoats with recommended primers) are not intended for use in direct contact with food.

Disposal and Other Considerations

Please follow the guidelines as outlined by The Plastics Industry Association (PIA) or Association of Plastics Manufacturers Europe (PlasticsEurope). For detailed information on health and safety, refer to the SDS.

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 (1475 °F) 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 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.

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