Teflon™ Water Based ETFE Topcoats

Industrial Coatings

699-205

Fact Sheet

699-205 is a liquid form of ETFE filled Powder 532-6118 which offers some attractive benefits in terms of cost-effectiveness, technology and applications. Applied by spraying, this product is suitable to complex builds and shapes to obtain surfaces with high chemical and temperature resistance, featuring low permeability, low coefficient of friction and non-stick properties.

Property Data [1]

Product Code	699-205
Color	Pewter
Closest RAL	XXXX
Coverage,[2] m^2/kg (m^2/L) (ft^2/gal)	11.26 (14.86) (606)
Viscosity,[3] centipoises	3000 - 3700
Volume Solids, %	36.1 – 38.1
Weight Solids,[4] %	50.0 – 53.0
Density, kg/l (lbs/gal)	1.319 (11.00)
VOC content, Europe,[5] g/kg	13.2
Maximum In-Use Temperature, °C (°F)	150 (300)
Flash Point, SETA closed cup, °C (°F)	None

[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 3 at 20 RPM/25°C)

[4]Weight Solids (Measured 30'x105°C+15'x300°C)

[5]Weight % volatiles based on volatiles with vapor pressure ≥ 0.1 hPa. US VOC (ap) and VOC (le) are listed on the US Safety data sheet, available upon request

Application Method

Coating Preparation	Gently mix 15 minutes 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	40 mesh (approx. 400 µm) stainless steel or nylon
Application	RP (Reduced Pressure), conventional or HVLP gun. Nozzle: 1.0-1.8 mm. Atomizing air pressure: 0.7-2 bar (10-30 psi). The settings highly depend on the gun type & coating viscosity. The product can be applied on preheated part at 30–40°C (85-105°F) max.to prevent sagging when applying higher film thickness. Apply dry-on-wet clear ETFE powder top-coat as final layer.
Recommended DFT*	Up to 300 µm (12 mil) per coat, total DFT of 1000 µm (40 mil) max. (spark test = 5-6 kV)
Recommended Primer	699N-129
Drying (metal temp.)	20-30 min. at 120–150°C (250-300°F), oven temperature not to exceed 150°C (300°F).
Curing (metal temp.)	30 minutes at 300-310°C (570-590°F). Keep a low delta between air and metal temperature to avoid additional stress on the coating. For multiple coats, 30 minutes at 290-300°C (555-570°F) each coat. Last coat should be baked 2-4 hours at 290°C (555°F) for optimum flow, oven temperature not to exceed 300°C (570°F).
Repair	It is possible to sandpaper the coating, use P80-120 (high DFT) or P400 low DFT). Be careful not to damage the primer, this would results in rust formation during the application of 699-205.
Clean up	Water
Thinner / Additive	Deionised water (For application on parts with difficult shapes or extensions of the spray guns)

* 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

Chemours™

Handling and Storage

- Gently mix (15 min at 30RPM) before use
- Shelf life is 18 months at optimal storage conditions: 18°C-27°C (65°F-80°F). Maximum storage temperature 40°C (105°F).
- Transport conditions: 5°C-40°C (40°F-105°F). For safe storage conditions, pls. refer to safety data sheet.
- Waterbased product, protect from freezing

For medical application and development, consult Chemours.

Food Contact

These materials are not intended for use in direct contact with food.

Disposal and Other Considerations

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

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 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 Chemours Nonstick coatings: www.chemours.com or www.teflon.com

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This document inactivates all previous versions
Created on December 16, 2016