Teflon™ Primers for FEP & PFA Topcoats

Industrial Coatings

420G-713, 420G-714, 420G-715, 420G-716

Fact Sheet

This line of solvent based primers is designed to work on any metallic substrate that withstand the recommended cure temperature and in combination with FEP and PFA mid- or topcoats. The primers can be used with powders or liquids and are used in many different applications, like Industrial Bakeware, Textile, Paper, Machinery and several other general industrial applications.

Property Data [1]

Product Code	420G-713	420G-714	420G-715	420G-716
Color	Black	Green	Brow	Blue
Closest RAL	9011	6010	8001	5013
Coverage,[2] m^2/kg (m^2/L) (ft^2/gal)	5.26 (x.xx) (xxx)	5.30	5.59	5.84 (x.xx) (xxx)
Viscosity,[3] centipoises	800-1100	800-1100	800-1100	800-1100
Volume Solids, %	15.09	15.69	16.14	17.32
Weight Solids,[4] %	25.0-28.0	29.0-32.0	28.5-31.5	29.5-32.5
Density, kg/l (lbs/gal)	1.147 (x.xx)	1.184	1.155	1.187 (x.xx)
VOC content, Europe,[5] g/kg	72.43	69.46	69.12	68.32
Maximum In-Use Temperature, °C (°F)	The system maximum in –use temperature is defined by topcoat			
Flash Point, SETA closed cup, °C (°F)	66 (xx)	63	43	48 (xx)

[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'x380°C)
[5]Weight % volatiles based on volatiles with vapor pressure ≥ 0.1 hPa

Application Method

Substrate	Carbon steel, stainless steel, aluminium. Substrate rich in metal such as Cu (and in a lesser extend in Mn) will cause discoloration of the primer
Surface Preparation	Degreasing, grit blasting (recommended Ra = 3-4 µm)
Mix well before use	Mix 30 minutes or more. Set the mixer speed so that a strong vortex is appearing. We recommend the use of an axial flow impeller. Its size should be 10-12 cm for the 4 kg packaging and 17-20 cm for the 20kg packaging. Typically the rotational speed would be in range of 200-500 rpm.
Filtering	60 mesh (app. 250 µm) stainless steel
Application	Gun: preferable RP (reduced pressure) guns, HVLP or conventional guns are also possible Nozzle: 1-1.4 mm, Pressure: 2-4 bar
Rec. topcoat	532G-5xxx, 532G-7xxx, 532G-9xxx, 858G-11x, 532G-8xxx, 856G-line
Rec. DFT*	10-12 µm. Note : inter coat adhesion failure can occur if the primer is applied above 20µm
Drying	Dry primer 10 minutes at 150-170°C before applying powder topcoat (good inter coat adhesion is also experienced when the powder topcoat is applied directly over the wet primer). Dry primer at 220°C before applying liquid coat.
Curing	See Topcoat Fact Sheet. The first layer after the primer needs a bake of 20-30 min at 380°C (metal temperature) to ensure a good intercoat adhesion
Clean up & thinner	TN-8596

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

Chemours™

Handling and Storage

- Rolling once a month (15 min. at 30 rpm) will be beneficial to the product stability and will reduce the settling.
- Roll before use and bring to room temperature – it will facilitate the mixing operation recommended here above before filtering and spray.
- Storage life is 18 months at room temperature (18°C-27°C)

For medical application and development, consult Chemours.

Food Contact

This primer, when used in combination with another layer compliant with food legislations, is designed to be used in direct contact with food. Applied according to the application method and instructions on this fact sheet, the fully cured system will comply with US FDA food contact regulations. It can be sold and/or used for food contact applications for non stick coatings in Europe following the national legislations of each European country, having specific regulations for this category of coatings (non-stick, high temperature resistant). Presuming appropriate processing by the coater/applicator following the Good Manufacturing Practices Regulation (EC) n° 2023/2006/EC, the products can be used in the countries of the European Community for the manufacturing of non-stick coatings according to article 3 of Regulation (EC) No 1935/2004. Any changes or variations of individual coating thickness from what is indicated in this fact sheet should be assessed for food contact applications prior to its use. For details and information please contact your DuPont representative.

In Europe, in the case of incomplete compliance in one country, the product can, on the basis of its full compliance in at least one Member State of the European Union, be used for direct food contact in all Member States according to the Article 34-36 of the Treaty on the Functioning of the European Union (TFEU).

420G-714 is FDA compliant at the condition that the ratio Clear Topcoat Dry Film Thickness to Primer Dry Film Thickness is equal or bigger than 3. If primer DFT is 10µm, it requires a clear topcoat of 30µm.

420G-715 is NOT FDA compliant.

Compositional statements, referring to relevant national legislation, are available on request.

Disposal and Other Considerations

Please follow the guidelines as outlined by SPI (The Society of the Plastics Industry) or APME (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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