

DuPont™ 958G-414 One Coat Green Industrial Nonstick Coatings

Product Information

958G-414 is a PTFE Low Bake One Coat not intended for food contact, which is designed for easy and flexible application combined with balanced properties. It offers excellent adhesion, a low coefficient of friction and good corrosion resistance while providing a hard and wear resistant coating. 958G-414 can be cured as low as 30 min at 180°C but optimum properties are obtained when baked 15 min at 225°C. Hardness is increasing when cure temperature is increased.

Property Data¹

Product Code	958G-414
Color	Green
Closest RAL	7026
Coverage, ² m ² /kg	7.64
Viscosity, ³ centipoises	2000-3500
Volume Solids, %	20.7
Weight Solids, ⁴ %	21.5-30.0
Density, kg/l	1.081
US VOC (as packaged) content, lbs/gal	6.6
Maximum In-Use Temperature, °C	200
Flash Point, SETA closed cup, °C	40

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 (m²/kg) at 25 µm dry film thickness (DFT) and based on 100% application efficiency. It does not take normal production losses into account.

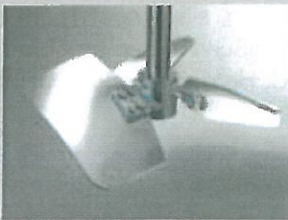
³ Brookfield RVT (internal method based on ASTM D2196 or equivalent) (Measured with spindle 3 at 20 RPM@25°C),

⁴ Weight Solids (internal method based on ASTM D2834), % Measured at 30'x105°C+10'x220°C



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Application Method

Substrate	Any metal substrate except high copper containing alloys. Pre-treatments, which withstand the curing temperature, are suitable.
Surface Preparation	Degreasing, grit blasting (recommended $R_a = 2-3\mu\text{m}$). Some end-uses even allow the application on smooth substrate.
Filtering	100 mesh (approx. $150\mu\text{m}$) stainless steel or nylon
Mix well before use	Excessive rolling can create foam. Set the mixer speed so that a strong vortex is appearing. We recommend the use of an axial flow impeller (min 3 blade). Its size should be 10-12 cm for the 4 kg packaging, 17-20 cm for the 20kg packaging and 25-30cm for 200 kg packaging. Typically the rotational speed would be in range of 200-500 rpm. Mix minimum 20 min.
	 <p>3 blade high viscosity axial flow impeller</p>
Recommended DFT	Up to $40\mu\text{m}$ / coat. Depending on the application requirements, one can coat from $25-120\mu\text{m}$. Several layers can be sprayed on top of each other.
Application	Can be applied on cold and warm substrate. Preheat the part to max 50°C (metal T°). Never exceed 50°C substrate temperature. Lower preheating temperature results in a smoother coating. Apply first coat max $40\mu\text{m}$ & dry 5-10 min at $60-80^\circ\text{C}$ (until product is not tacky anymore) Apply next coat max. $40\mu\text{m}$ & dry each intermediate coat 5-10 min at $60-80^\circ\text{C}$ If several layers are applied, it's recommended to dry for a longer period to be sure that the underneath layers are dry. In case underlying layers are not dry enough, it might result in blister formation. After last coat was applied, dry 20 min at $80-100^\circ\text{C}$, then 60 min at 150°C
Cure	Finally cure 958G-414 at 225°C for 15 minutes. If one can accept compromise in terms of Coefficient of friction and mechanical properties (a.o. Hardness and abrasion resistance), coating can be cured 30 min at 180°C . Hardness is increasing when cure temperature is increased (tested up to 240°C)
Typical spray settings	Depending on the type of guns, thinning can be necessary Gun: RP (Reduced pressure) guns, or conventional. Nozzle: 1.0-1.5 mm Air pressure: 2-5 bar
Clean up/Thinner	Thinning can be necessary depending on the spray methodology: TN-8595 for cleaning and thinning

All recommendations are based upon best knowledge

Handling and Storage

- Mix before use. Bring the product to room temperature to facilitate the mixing operation before filtering and spray.
- Storage life is 18 months at room temperature (18°C-27°C)
- Protect from freezing

For detailed information on health and safety, refer to the Material Safety Data Sheet and the latest edition of "The Guide to the Safe Handling of Fluoropolymer Resins," published by The Society of the Plastics Industry, Inc. (www.fluoropolymers.org) or by PlasticsEurope (www.plasticseurope.org).

Food Contact

This material is not intended for use in direct contact with food.

Disposal and Other Considerations

Please follow these disposal guidelines as outlined in "The Guide to the Safe Handling of Fluoropolymer Resins," (available at www.fluoropolymers.org for download):

- 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 permit- ted, 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.
- * A copy of the "Guide for the Safe Handling of Fluoropolymer Resins" is available from DuPont upon request.

For more information on
DuPont Industrial Nonstick Coatings, please visit
www.teflon.com/industrialglobalsupport

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