



General Industrial Coatings

CC-M21

MIL-DTL-64159C, Type II Waterborne Polyurethane Chemical Agent Resistant Coating

Aircraft Green, 34031.....	F93G505	Green 383, 34094.....	F93G504	Foliage Green, 34160.....	F93G509
Brown 383, 30051.....	F93N505	Tan 686A, 33446.....	F93H504	Black, 37030.....	F93B505
Aircraft Black, 37038.....	F93B506	Interior Gray, 36231.....	F93A501	Catalyst (Component B).....	V93V502
Woodland Desert Sage, 34201 ...	F93G510	Olive Drab, 34088.....	F93G512		

DESCRIPTION

MIL-DTL-64159C, Type II coatings are two component waterborne polyurethane chemical agent resistant coatings (CARC) for military equipment. They meet the performance and composition of the MIL-DTL-64159C, Type II specification. They can be effectively decontaminated after exposure to liquid chemical agents.

Advantages:

- VOC* of less than 1.8 lbs./gal
- Less than 0.9 lbs./gal Volatile Organic Emissions
- Reduces with water
- Low odor
- Excellent atomization
- Smooth finish versus standard CARC
- May be applied with two component equipment
- Free of lead and chromate hazards
- Excellent exterior durability

The following MIL-DTL-64159C, Type II products are approved by the U.S. Army Research Lab, Aberdeen Proving Grounds, Aberdeen, MD:

<u>Sherwin-Williams</u>	<u>QPD</u>
F93G504	Q1653
F93H504	Q1660
F93B505	Q1655
F93N505	Q1654
F93G505	Q1661
F93B506	Q1680
F93A501	Q1765
F93G510	Q1910
F93G509	Q1764
F93G512	Q2168

* VOC Compliance limits vary from state to state; please consult local Air Quality rules and regulations.

An Environmental Data Sheet is available from your local Sherwin-Williams facility or at www.PaintDocs.Com.

CHARACTERISTICS

60° Gloss:	3.0 units max
85° Gloss:	8.0 units max

Refer to MIL-DTL-64159 for specific gloss requirements by color.

Recommended Film Thickness:

Mils Wet	3.9-8.1
Mils Dry	2.0-3.0

Drying:	(2.0 mils DFT, 70° F, 50% RH)
To Touch	60 minutes
To Dry Hard	6 hours
Through-Dry	8 hours
Total (Full Properties)	7 days

Force Dry: Flash 60 mins. then dry 45 mins. @ 140° F

Flash time is dependent on air movement, humidity, and temperature. The one hour flash can be reduced with an air dehydrator or fans to help remove the water. All the water must be out of the coating before force dry.

Flash Point	200° F
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Mixing Ratio (by volume):

Component A	2 Parts
Component B (V93V502)	1 Part

Reduce as needed up to one part per volume of water, or as recommended by manufacturer.

Pot Life:	6 hours
Package Life:	18 months, unopened Inside storage

Air Quality Data:

- Non-photochemically reactive
- Volatile Organic Compounds (VOC)
 - catalyzed and reduced as above, maximum 1.8 lbs./gal, 216 g/L
- Volatile Organic Emissions
 - catalyzed and reduced as above, maximum 0.9 lbs./gal, 108 g/L

SPECIFICATIONS

CLEANING & PRETREATMENTS

Follow the most current revisions of MIL-DTL-53072 and/or TT-C-490 for required cleaning and pretreatment application before applying primers and/or topcoats.

For **ferrous substrates**, use: MIL-DTL-53022 Types II, III, IV or V; MIL-DTL-53030 Type II; MIL-PRF-32348 Type I or Type II; or MIL-DTL-53084 electrocoat.

For **non-ferrous substrates**, use: MIL-DTL-53022 Types II, III, IV or V; MIL-DTL-53030 Type II; MIL-PRF-32348 Type I or Type II; MIL-DTL-53084 electrocoat.

Note: See the current MIL-DTL-53072 for complete details regarding substrate preparation, coatings, and application.

Testing: The information, data, and recommendations set forth in this Product Data Sheet are based upon test results believed to be reliable. However, due to the wide variety of substrates, substrate properties, surface preparation methods, equipment and tools, application methods, and environments, the customer should test the complete system for adhesion, compatibility, and performance prior to full scale application.

APPLICATION

Typical Setups

Reduction: Reduce with deionized or distilled water.

Cleanup/Reduction: Clean tools/equipment immediately after use with water.

For application and usage guidelines, please contact your local Sherwin-Williams sales rep.

Note: See MIL-DTL-53072 for complete details regarding substrate preparation, coatings and application.

ADDITIONAL INFORMATION

1. These coatings (Component A) must be catalyzed with Catalyst (Component B), V93V502, at 2:1 ratio by volume.
2. Do not use other catalysts other than V93V502. Do not vary catalyst mixing ratio.
3. Component A must be well agitated prior to use by using a paint shaker.
4. Component A, Component B, and Reducer must be mixed well with a mechanical mixer.

Performance Properties: Meets all the performance properties of MIL-DTL-64159C, Type II.

CAUTION:

Admixed material should not be discarded in sealed drums. Vented plugs should be used on the drums. This material will generate carbon dioxide gas within the first 24 hours of being mixed. After the material has been mixed for 24 hours, the gas is no longer emitted, and the drums can be sealed.

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CAUTIONS

FOR INDUSTRIAL SHOP APPLICATION ONLY

Thoroughly review product label and Safety Data Sheet (SDS) for safety information and cautions prior to using this product.

To obtain the most current version of the Environmental Data Sheet (EDS), Product Data Sheet (PDS), or Safety Data Sheet (SDS), please visit your local Sherwin-Williams facility or www.PaintDocs.Com.

Please direct any questions or comments to your local Sherwin-Williams facility.

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