



**SHERWIN
WILLIAMS.**

General Industrial Coatings

CC-M21

MIL-DTL-64159B, Type II

Waterborne Polyurethane Chemical Agent Resistant Coating

Aircraft Green, 34031 F93G505
Brown 383, 30051 F93N505
Aircraft Black, 37038 F93B506
Woodland Desert Sage, 34201 F93G510

Green 383, 34094 F93G504
Tan 686A, 33446 F93H504
Interior Gray, 36231 F93A501
Olive Drab 34088 F93G512

Foliage Green, 34160 F93G509
Black, 37030 F93B505
Catalyst (Component B) V93V502

<u>DESCRIPTION</u>	<u>CHARACTERISTICS</u>	<u>SPECIFICATIONS</u>																						
<p>MIL-DTL-64159B, 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-64159B, Type II specification. They can be effectively decontaminated after exposure to liquid chemical agents.</p> <p>Advantages:</p> <ul style="list-style-type: none"> • VOC* of less than 1.8 lb/gal • Less than 0.9 lb/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. <p>The following products have been approved by the U.S. Army Research Lab, Aberdeen Proving Ground, Aberdeen, MD and given the approval codes listed below.</p> <table border="1"> <thead> <tr> <th>Sherwin-Williams</th> <th>QPD#</th> </tr> </thead> <tbody> <tr><td>F93G504</td><td>Q1653</td></tr> <tr><td>F93H504</td><td>Q1660</td></tr> <tr><td>F93B505</td><td>Q1655</td></tr> <tr><td>F93N505</td><td>Q1654</td></tr> <tr><td>F93G505</td><td>Q1661</td></tr> <tr><td>F93B506</td><td>Q1680</td></tr> <tr><td>F93A501</td><td>Q1765</td></tr> <tr><td>F93G510</td><td>Q1910</td></tr> <tr><td>F93G509</td><td>Q1764</td></tr> <tr><td>F93G512</td><td>Q2168</td></tr> </tbody> </table> <p>An Environmental Data Sheet is available from your local Sherwin-Williams facility or at www.paintdocs.com *VOC compliance limits vary from state to state; please consult local Air Quality rules and regulations</p>	Sherwin-Williams	QPD#	F93G504	Q1653	F93H504	Q1660	F93B505	Q1655	F93N505	Q1654	F93G505	Q1661	F93B506	Q1680	F93A501	Q1765	F93G510	Q1910	F93G509	Q1764	F93G512	Q2168	<p>Gloss - 2.0 mils dry: 3.0 units max (60°) 8.0 units max (85°) Refer to MIL-DTL-64159 for specific gloss requirements by color.</p> <p>Recommended film thickness: Mils Wet 3.9 - 8.1 Mils Dry 2.0 - 3.0</p> <p>Drying (2.0 mils DFT, 70°F, 50% RH): Dry to Touch: 60 minutes Dry Hard: 6 hours Dry Through: 8 hours Full Cure: 7 days</p> <p>Force Dry: Flash 1 hour, then dry 45 minutes at 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.</p> <p>Flash Point: 200°F</p> <p>Mixing Ratio: 2 part Component A 1 part Component B V93V502 Reduce as needed up to one part per volume of water, or as recommended by manufacturer</p> <p>Pot Life: 6 hours Package Life: 18 months, unopened, inside storage</p> <p>Air Quality Data: Non-photochemically reactive Volatile Organic Compounds (VOC) catalyzed and reduced as above, maximum 1.8 lb/gal, 216 g/L Volatile Organic Emissions Catalyzed and reduced as above, maximum 0.9 lb/gal, 108g/L</p>	<p>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.</p> <p>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.</p> <p>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</p> <p>Note: See the current MIL-DTL-53072 for complete details regarding substrate preparation, coatings, and application.</p> <p>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.</p>
Sherwin-Williams	QPD#																							
F93G504	Q1653																							
F93H504	Q1660																							
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F93A501	Q1765																							
F93G510	Q1910																							
F93G509	Q1764																							
F93G512	Q2168																							

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.

SPECIFICATIONS

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

Performance Properties:

Meets all the performance properties of MIL-DTL-64159B, Type II.

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.

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.

CAUTIONS (CONT)

Note: All purchases of products from Sherwin-Williams are exclusively subject to Sherwin-Williams' terms and conditions of sale which can be found at www.sherwin.com. Please review these terms and conditions prior to the purchase of the products.

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