Waterborne CARC Camouflage Top Coat MIL-DTL-64159
Type II Polymeric Based Flattening Agent

Intended Uses:

This two component waterborne polyurethane chemical agent resistant coating (CARC) is intended to provide surfaces that are easily and effectively decontaminated after exposure to liquid chemical agents. It may be used in areas where VOC and VOHAPS are regulated. This Chemical Agent Resistant Coating meets MIL-DTL-64159 Type II and provides both visual and infrared camouflage to military vehicles and equipment.

Physical Properties

Color:	Aircraft Green Fed. Std. #34031	**Substrate Tested:**	Zinc Phosphate Pretreated Steel
Gloss:	0.9 max @ 85º	**Salt Spray (B117): Q-Steel panels prepared at a combined primer/top coat system of 3.5-4.5 dft**	336 hrs – 1000 hrs dependent on primer selection
Volume Solids:	46.9 +/- 2 % mixed unreduced	**Humidity:**	336 hrs – 1000 hrs dependent on primer selection
Weight Solids:	55.1 +/- 2 % mixed unreduced	**QUVA (340) :**	1000 hrs
Weight Per Gallon:	(A)9.7 (H2OB)8.9+/-0.3 lbs/gal	**Pencil Hardness:**	2H
Theoretical Coverage:	753 sq ft/gal @ 1 mil dft mixed unreduced	**Impact Direct/Indirect:**	40 inch-pounds
VOC:	<1.8 lbs/gal mixed	**Dry Heat Resistance:**	Pass
Recommended Film Thickness:	1.8 – 2.0 mils DFT	**Crosshatch Adhesion:**	Pass 5
Viscosity:	A Component 55 - 80 KU		

Chemical Resistance

MEK, 100 Double Rubs:	Pass	**10% Hydrochloric Acid:**	Pass
Lubricating and Cutting Oils:	Pass	**10% Acetic Acid:**	Pass
Hydraulic Fluids:	Pass	**10% Sodium Hydroxide:**	Pass
Water Immersion:	Pass	**Gasoline:**	Pass

Application Characteristics

Mix Ratio:	Mix 2 parts N-8508A with 1 part H_2OB by volume.* See comments. Mixture will thicken after mixing.			
Reducer:	Water – 1 part by volume can be used to thin to spray viscosity if necessary			
Cleaning Solvent:	Water			
Pot Life:	4 hours @ 78ºF. Increases in temperature may reduce pot life.			
Dry Times:	**Touch:** 15 - 30 min.	**Recoat:** Anytime – cleaning and sanding may be needed	**Hard:** 1 - 2 hrs	**Through Dry:** 2 hrs max.
Full Cure:	1 week			
Note: Test Performed @ 77□ F 50% Relative Humidity				

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Recommended Primers

Substrate	Recommended Primer
Aluminum/Galvanized Steel/Stainless Steel:	B-875/T-63 or N-8564A/N-8564B Wash Primers and N-1088A/B, N-1981A/B or N-8901A/B Epoxy Primers.
Ductile or Grey Iron Castings:	N-1981A/B, N-8901A/B or N-1088A/B
Plastics:	Due to the wide variety of plastic/fiberglass substrates, system performance should be tested and confirmed on actual substrate.
Previously Painted Surfaces:	Surface should be intact and sound. All loose and flaking material removed and bare spots primed with an appropriate primer. An area should be tested with the coating to assure compatibility.
Steel:	N-5751M2 Zinc Rich Epoxy, N-1088A/B, N-1981A/B or N-8901A/B Epoxy Primers.
Wood:	Due to the wide variety of wood substrates, system performance should be tested and confirmed on actual substrate.

Application Equipment

Conventional Electrostatic:	**Air Pressure:** N/A	**Fluid Pressure:** N/A	**Cap:** N/A **Tip:**
Conventional Spray:	**Air Pressure:** 10 - 30 psi	**Fluid Pressure:** 20 - 40 psi	**Cap:** **Tip:** 1.4 – 1.6
HVLP Spray:	**Air Pressure:** 10 psi	**Fluid Pressure:** 20 - 40 psi	**Cap:** **Tip:** 1.4 – 1.6
Air Assisted Airless:	**Air Pressure:** 20 - 40 psi	**Fluid Pressure:** 1000 psi	**Cap:** **Tip:** 0.011 - 0.013”
Airless:	**Pressure:** 3000 psi	**Tip:** 0.013”	
Brush and Roll: Use for touch up only, the use of natural china chip bristle brushes or ¼” maximum nap mohair type rollers is highly recommended to limit the amount of orange peel.			
Note: The above parameters are to be used as a guideline only. Customer specific equipment may require a different set-up			

Surface Preparation

Do not apply if the application surface temperature is below 45□F (7□C) or above 110□F (43□C), or if the surface temperature is within 5□F of the dew point. It is highly recommended that sound practices as set forth by SSPC or NACE be followed when preparing a substrate for painting. At a minimum the surface should be clean of all grease, dirt, oil, rust and foreign material that would be detrimental to proper adhesion and desired performance of the coating system being applied.

Safety Precautions

This product is intended for professional use in an industrial environment only! Consult the Material Safety Data Sheet prior to application for detailed information on the health and safety hazards.

Shelf Life & Storage Conditions

Shelf life (protected from atmospheric moisture): 12 months from the date of manufacture. This product must be stored in accordance with local, state, and national regulations. Preferred storage conditions: Keep containers in a dry space with adequate ventilation.

Comments

*Use of a mechanical mixer is required. Hand stirring will not adequately mix both components. Application temperature should be between 60^{o}F and 90^{o}F. Best results with relative humidity above 10% and less than 80%. Application and use of this product is outlined in MIL- DTL-53072D, which should take precedence as a CARC processing guideline.

Note

The above information is supplied as a guideline to our customers. The user must be aware of the cleaning, pretreatment, application and testing requirements for their specific job!