General Industrial Coatings

CC-M27

MIL-DTL-53022F, Type IV, Class L HAPS Free, 2.8 lb/gal VOC Enhanced Corrosion Primer

Light Gray (Component A).....E90A228 Catalyst, Fast Cure (Component B).....V93V235

DESCRIPTION

MIL-DTL-53022F, Type IV, Class L is a two component, 2.8 lb./gal. *VOC, HAPS free compliant, lead and chromate free epoxy primer. It meets the MIL-DTL-53022F Type IV, Class L composition and performance specification. It may be used as a primer under polyurethane chemical agent resistant coatings (CARC) specified in MIL-DTL-53039 or MIL-DTL-64159. It may also be used under MIL-PRF-22750 epoxy topcoats and under MIL-PRF-85285 (non-aircraft) polyurethane topcoats.

Advantages:

- Meets all the performance properties of MIL- DTL-53022F, Type IV.
- Passes 30 cycles GMW 14872 and 1,008 hours ASTM B117 salt spray
- Excellent hardness
- Non Isocyanate
- Air or force dry cure
- Excellent chemical resistance
- Complies with 2.8 *VOC solvent emissions.
- HAPS free
- Free of lead and chromate hazards

The following MIL-DTL-53022F, Type IV products are approved by the U.S. Army Research Lab, Aberdeen Proving Grounds, Aberdeen, MD:

Sherwin-Williams	QPD
E90A228	Q2056
V93V235	Q2056

* 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: 10-45

Volume Solids:

E90A228	52.5 ± 2 %
V93V235	36.0 ± 2 %
Admixed	49.4 ± 2 %

Viscosity (at 77° F)**:**

E90A228	63-85 Krebs Units
V93V235	15-22 secs., #2 Zahn Cup
Admixed	20-28 secs., #2 Zahn Cup

Recommended Film Thickness (unreduced)**:**

Mils Wet	3.0-5.0
Mils Dry	1.5-2.5

Spreading Rate (no application loss)**:**
530 ft.^{2}/gal. at 1.5 mil DFT

Cure:

Air Dry	
Force Dry	30 mins. flash, 60 mins. at 140° F

The force dry schedule above is provided as a guide. Wet film thickness, humidity, flash off time, part size and oven characteristics will all have an effect on drying and cure. Test for your specific application and line conditions.

Substrate Disclaimer: Curing of coating at temperatures higher than the heat distortion parameters of the substrate may cause substrate issues.

Drying: (1.5 mils dry at 77° F, 50% RH)

To Touch	60 minutes
To Dry Hard	5 hours
Through-Dry	8 hours
To Recoat w/ Itself	30-60 minutes
To Coat w/ Topcoat	30-60 minutes
Total (Full Properties)	7-10 days

Mixing Ratio (by volume)**:**

E90A228	4 Parts
V93V235	1 Part

Shake E90A228 well before using.

Induction Time: 30 minutes

Potlife (at 77° F)**:** 4-6 hours

Flash Point (Pensky Martens Closed Cup)**:**

E90A228	9° F
V93V235	61° F
Admixed	9° F

Air Quality Data:
Photochemically Reactive Volatile Organic Compounds (VOC, less exempt solvents, maximum):

E90A228	2.34 lbs./gal., 281 g/L
V93V235	4.03 lbs./gal., 483 g/L
Admixed	2.75 lbs./gal., 330 g/L

Recommended Storage: Inside, sealed container, 40-120° F, no freeze hazard. Protect from moisture.

Package Life: 2 years, unopened
Inside storage

SPECIFICATIONS

CLEANING & PRETREATMENTS
Follow the most current revisions of MIL-DTL-53072 and/or TT-C-490 for required cleaning and pretreatment application before coating.

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

General: All substrates should be free of mold release, oil, grease, dirt, fingerprints, drawing compounds, surface passivation treatments and any other contaminants to ensure optimum adhesion and coating performance. For non-military uses, consult Metal Preparation brochure CC-T1 for additional details.

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.

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APPLICATION

Typical Setups

Reduction: If required, use only HAPS free solvents as recommended by the manufacturer. R6K9 (Acetone) is recommended in most regions. For applications or regions where VOC or HAPS are not regulated, reduction with R6K10 (MEK), R6K16 (MIBK), R6K30 (MAK), R91K210 (MIL-DTL-81772C T2 Epoxy Reducer), or R91K25 (MIL-DTL-81772C T4 Low VOC Epoxy Reducer) are recommended.

For all application and usage guide- lines, please consult and review the MIL-DTL-53072 & TT-C-490 specifications as well as your local Sherwin- Williams representative.

Cleanup: Clean tools / equipment immediately after use with R6K9 (Acetone), R6K10 (MEK), R6K16 (MIBK), R6K30 (MAK) or other epoxy thinners such as R91K210 (MIL-DTL-81772C T2 Epoxy Reducer) or R91K25 (MIL-DTL-81772C T4 Low VOC Epoxy Reducer).

Follow manufacturer's safety recommendations when using any solvent.

PRODUCT LIMITATIONS

1. This product must be properly catalyzed before using. **DO NOT VARY CATALYST RATIO.** The catalyst ratio has been established for optimum properties
2. Surface preparation is important for coating performance.
3. If parts have been primed for longer than 7 days, they must be sanded and recoated with a mist coat of E90A228 before topcoating for good adhesion.
4. Due to the wide variety of substrates, surface preparation methods, application methods, and environments, the customer should test the complete system for adhesion and compatibility prior to full scale application.
5. On sandblasted surfaces, apply sufficient film thickness to fully protect the blast profile. This is typically 1.5 mil more than the blast profile.

CAUTIONS

FOR INDUSTRIAL SHOP APPLICATION ONLY

Thoroughly review the 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.

Note:
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