



WATERBORNE AMINE EPOXY V440

Features

- Waterborne amine epoxy
- Water cleanup and fast dry
- Easy application with excellent adhesion
- Very good resistance to water and chemicals
- Excellent for use on basement floors
- Suitable For Use In USDA Inspected Facilities

Recommended For

Properly Prepared and/or Primed Steel, Iron, Concrete, Non-Ferrous Metals, Wood & Drywall. V440 is designed for use in food and beverage processing plants, warehouses, industrial refurbishment, healthcare facilities, schools, industrial and commercial flooring, and other areas where a performance epoxy is needed which concerns that accompany conventional solvent thinned epoxies.

General Description

Waterborne Amine Epoxy is formulated to provide good chemical, abrasion and impact resistance on a variety of commercial and industrial surfaces, including steel, iron, concrete, non-ferrous metals, wood and drywall. Particularly suited for use on concrete floors. This waterborne product is easy to apply, and thus can be applied in occupied areas. **This is a two component product that requires 3 parts of the proper "A" component mixed with 1 part of part "B" catalyst. The components are already premeasured to the proper mix ratio. No measuring required. Do not mix partial kits.**

Limitations

- Do not apply if material, substrate or ambient temperature is below 50 °F (10 °C).
- Relative humidity should be below 90%. Do not apply if within 5 degrees of dew point or if rain is expected within 12 hours of application.
- Will amber and chalk if exposed to UV light.

Product Information

Colors — Standard:

Clear (00), White (01), Terra Cotta (22), Sandstone (52), Silver Gray (70), Battleship Gray (75)

— Tint Bases:

Pastel Base (85), Tint Base (86), Deep Base (87), Clear Base (88)
Tint with Universal Colorants Only

TINT ONLY THE "A" COMPONENT

— Special Colors:

Contact your retailer.

Certifications & Qualifications:

The products supported by this data sheet contain a maximum of 250 gram per liter VOC / VOS (2.09 lbs. /gal.) excluding water & exempt solvents.

Suitable for use in USDA Inspected Facilities

CDPH v1 Emission Certified

VOC REGION	COMPLIANT
FEDERAL	YES
OTC	YES
OTCII	YES
CARB	YES
CARB07	YES
UTAH	YES
AZMC	YES
SCAQMD	NO

Technical Assistance:

Available through your local authorized independent Benjamin Moore retailer. For the location of the retailer nearest you, call 1-866-708-9180 or visit www.benjaminmoore.com

Technical Data[◇]

White

Generic Type	Amine Adduct Epoxy
Pigment Type	Titanium Dioxide
Volume Solids (mixed as recommended)	43 ± 2.0%

Coverage per Gallon at

Recommended Film Thickness	375 - 475 Sq. Ft.	
Recommended Film Thickness	– Wet	3.4 - 4.3 mils
Recommended Film Thickness	– Dry	1.5 - 1.9 mils

Coverage is affected by surface texture and porosity. Be sure to estimate the right amount of paint for the job. This will ensure color uniformity and minimize the disposal of excess paint.

Dry Time @ 77 °F (25 °C) @ 50 RH	– To Touch	2 Hours
	– To Recoat	8 Hours
	– Full Cure	3 – 5 Days

*If top coat is not applied within 72 hours abrade the surface to ensure proper inter-coat adhesion. Maximum abrasion and chemical resistance are achieved at full cure; care should be taken to prevent damage to the coating during the curing process. High humidity and cool temperatures will result in longer dry, recoat and cure times.

Dries By Chemical Cure

Dry Heat Resistance 250 °F

Viscosity @ 77° F (mixed as recommended) 80 – 85 KU

Flash Point 200° F (TT-P-141, Method 4293)

Gloss Gloss (85+ @ 60°)

Surface Temperature 50 °F
at application – Min. 100 °F
– Max.

Surface must be dry and at least 5° above the dew point

Thin With Do Not Thin

Clean Up Thinner Warm Water

Mixed Ratio (by volume) 3 : 1

Induction time @ 77 °F (25 °C) 30 Minutes

Pot Life @ 77 °F (25 °C) 3 Hours

Weight Per Gallon (mixed as recommended) 11.1 lbs.

Storage Temperature 45 °F
– Min. 95 °F
– Max.

Volatile Organic Compounds (VOC)

206 Grams / Liter* 1.72 LBS / Gallon*

* Catalyzed

◇ Reported values are for White. Contact retailer for values of other bases or colors.

Waterborne Amine Epoxy V440

Surface Preparation

All surfaces must be sound, dry, clean and free of oil, grease, dirt, mildew, mill scale, form release agents, curing compounds, loose and flaking paint and other surface contaminants.

NEW SURFACES: Concrete and Masonry: All masonry surfaces must be allowed to cure a minimum of 30 days before painting. Acid etch or abrasive blast all slick, glazed concrete or concrete with laitance. For acid etching, follow all manufacturer's directions and safety instructions. Rinse thoroughly and allow to dry. Prime concrete with one coat of V155 100% Solid Epoxy Pre-Primer or V156 Moisture Tolerant Fast Set Epoxy Sealer. Bare concrete may require two coats of V440 to obtain desired finish.

STEEL AND FERROUS METALS: The use of Corotech® V110 Acrylic Metal Primer or V175 Waterborne Bonding Primer is recommended. All primers provide maximum performance over near white metal blasted surfaces (SSPCSP 10). There are however, situations and cost considerations that may prevent this type of surface preparation from being done. Corotech® Industrial Coatings have been designed to provide protection over less than ideal surfaces. The recommended standard is a commercial blast (SSPC-SP 6). The steel profile after the blast should be 1-2 mils and be jagged in nature. Surfaces must be free of grit dust. The coating should be applied as soon as possible after the blast in order to prevent flash rusting or surface contamination. Hand tool cleaning (SSPC-SP 2) or power tool cleaning (SSPC-SP 3) can be used if blasting is not possible. In areas where adequate surface preparation is not possible the use of V155 100% Solid Epoxy Pre-Primer is recommended. In highly corrosive areas where additional rust inhibitive qualities are required, prime with one coat of V170 Organic Zinc-Rich Primer prior to applying epoxy coatings.

GALVANIZED AND NON-FERROUS METALS: Solvent clean all surfaces [SSPC-SP-1]. Apply one coat of Corotech® V110 Acrylic Metal Primer or V175 Waterborne Bonding Primer.

DRYWALL: Insure drywall is dust & chalk free. Prime with an acrylic drywall primer.

PREVIOUSLY PAINTED SURFACES: Can be applied over most existing industrial finishes in good condition.

WARNING! If you scrape, sand, or remove old paint, you may release lead dust. LEAD IS TOXIC. EXPOSURE TO LEAD DUST CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE. Wear a NIOSH approved respirator to control lead exposure. Clean up carefully with a HEPA vacuum and a wet mop. Before you start, find out how to protect yourself and your family by contacting the National Lead Informational Hotline at 1-800-424-LEAD or log on to www.epa.gov/lead.

Application

Mixing Instructions:

This is a two component kit and is pre-proportioned for error free mixing. DO NOT vary from these instructions. Mix "A" & "B" separately

- Carefully empty the entire contents of V 440-90 activator into the can of V440-Part A component resin; scrape the sides of the pail of Part B to make sure all liquid has been added. Part A container is oversized to completely accept entire contents of Part B material.
- Using a jiffy mixer at low speed, blend this mixture for three to five minutes until completely blended. Keep the mixing blade turning at a slow speed to minimize whipping air into material. Scrape sides of pail during the mixing process.
- Care must be taken to assure both components are completely mixed in order to avoid partially cured spots in the coating.
- Allow to induct for 30 minutes.

It is extremely important to remember that Epoxy Coatings have a limited pot life; therefore, it is wise to make sure sufficient manpower and correct application tools are in order prior to starting the mixing sequence. Estimated pot life is: 2 to 4 hours @ 77 °F (25 °C)

Application:

Airless Spray (Preferred Method): Tip range between .015 and .019. Total fluid output pressure at tip should not be less than 2100 psi.

Air Spray (Pressure Pot): DeVilbiss MBC or JGA gun, with 704 or 765 air cap and Fluid Tip E.

Brush: Synthetic Bristle only. **Roller:** Industrial Cover with Phenolic core. ¼" – ½" nap.

NOTE: Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with warm water. No reduction is necessary.

DRYING TIME: Dries tack free in 2 hours. Can be recoated in 8 hours. This dry time is based on 77 °F and 50% relative humidity. Lower temperature and/or higher humidity will result in longer dry times.

NOTE: If more than 72 hours (@ 77 °F) elapses between coats, sand the film to provide sufficient profile.

Additional Notes: All high gloss surfaces can be slippery. Where non-skid characteristics are desired, hand broadcast an appropriate anti-slip aggregate into the wet film then back-roll to encapsulate. Benjamin Moore's Corotech® Anti-Slip Aggregate V630 works well for non-clear coats. All epoxy coatings will chalk and fade if applied on exterior surfaces subjected to direct sunlight. All epoxies tend to yellow. Where color and gloss retention is important top-coating will be necessary. Will stain with prolonged exposure to some solvents and chemicals or in kennels if exposed to animal waste. This staining will not affect the durability or protective qualities of the coating. Will not cure at surface temperatures below 50 °F.

TEST DATA	
Flexibility (ASTM D1737)	Pass 1/8" Mandrel
Sag Resistance	Passes 8+ mils
Steam Resistance	Yes
Dry Heat Resistance	250 °F
Wet Heat Resistance	180 °F
Adhesion (ASTM D3359)	Pass 5B
Pencil Hardness (1 week cure)	HB
Direct Impact / Reverse Impact	160 in/lbs
Accelerated Weathering (ASTM G53)	500 hours, no change
Abrasion Resistance (ASTM D4060) CS-10 Wheel, 1000g load	90 mg loss after 1000 cycles
Humidity (ASTM D4585) (2 Coats over V150 – 1000 Hours)	Face Corrosion: None Face Blistering: None Rating: 10, Rust: 0.00%
Salt Spray (ASTM B117) (2 Coats over V110 (1000 Hours)	Face Corrosion: None Face Blistering: None Rating: 9, Rust: 0.05%

CHEMICAL RESISTANCE GUIDE (NON-IMMERSION)	
Fresh Water	Excellent
Salt Water	Excellent
Waste Water	Excellent
Acids	Good-Excellent
Alkalis	Good
Solvents	Excellent
Fuel	Good
Acidic Salt Solutions	Excellent
Alkaline Salt Solutions	Good
Neutral Salt Solutions	Excellent

SYSTEMS RECOMMENDATIONS	
PRIMERS	
Ferrous Metal (Blasted)	V110 Line, V150 Line, V155-00 or V160 Line
Ferrous Metal (Marginally Prepared)	V155-00 or V160 Line
Non-Ferrous Metal	V110 Line or V175-00
Concrete	Use Direct or use V110 Line, V114-01, or V155-00, V160 Line, V163-01, or V400-00 Clear
Drywall	Use a good quality acrylic drywall primer
Aged coatings	Use Direct or use V110 Line
COMPATIBLE INTERMEDIATES	
V160 Line, V163-01	
For substrates other than listed above, or for usage in severe environmental conditions, please consult with Corotech® Technical Service.	

Waterborne Amine Epoxy V440

Clean Up

Clean up with warm water.

Environmental Health & Safety Information

Danger!

Harmful if swallowed

Causes skin irritation

Causes serious eye damage

May cause cancer

Suspected of damaging fertility or the unborn child

Causes damage to organs

Causes damage to organs through prolonged or repeated exposure

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Do not breathe dust/ fume/ mist/ vapors/spray.

Response: If exposed call a POISON CENTER or physician. If in eyes rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician. If on skin wash with plenty of soap and water. If skin irritation occurs get medical attention. Take off contaminated clothing and wash before reuse. If swallowed call a POISON CENTER or physician if you feel unwell. Rinse mouth.

Storage: Store locked up.

Disposal: Dispose of contents/container to an approved waste disposal plant.

IMPORTANT: Designed to be mixed with other components. Mixture will have hazards of all components. Before opening packages, read all warning labels. Follow all precautions.

CAUTION: All floor coatings may become slippery when wet. Where non-skid characteristics are desired, a small amount of clean sand may be added. Stir often during application.



WARNING Cancer and Reproductive Harm—
www.P65warnings.ca.gov

This document represents hazards of the product referenced above. Refer to the individual Safety Data Sheet for hazards of the specific product you will be using.

**KEEP OUT OF REACH OF CHILDREN
KEEP FROM FREEZING
FOR PROFESSIONAL USE ONLY**

**Refer to Safety Data Sheet for
additional health and safety information.**