

TECHNICAL DATA

Product Description

Mult-E-Poxy 240 is a high solids, epoxy formulated to provide a variety of substrate types the ultimate in protection even when exposed to extreme environments. Its tile-like, gloss sheen enhances the appearance and protection of your substrate. Against abrasion, moisture, corrosive fumes and chemicals, Mult-E-Poxy 240 will protect your substrates from costly deterioration. Its ability to be applied to tightly adhering rust and most tightly adhered, existing coatings makes it a unique choice for difficult substrates. Mult-E-Poxy 240 cures through a wide range of temperatures allowing for maximum flexibility in application.

Intended Uses

Apply to:

- Interior or exterior surfaces
- Galvanized metal
- Masonry surfaces
- Composites
- Ferrous metal
- Aluminum
- Zinc rich products

Protects:

- Tanks
- Conveyors
- Processing plants
- Power generating plants
- Equipment
- Material handling facilities
- Structural or support steel

The above are general recommendations and not intended to limit the use of Mult-E-Poxy 240. Test areas are always recommended to confirm results.
NOT INTENDED FOR IMMERSION SERVICE.

Physical Properties

Resin Type	2 Component Polyamide Epoxy
Finish/Sheen	Gloss, 90+ @ 60°
Bases (Part A)	White/White Base LF-1241, Deep Base LF-1243, Clear Base LF-0244 Tintable in "ICS"
Cure (Part B)	LM-0240
Solids by Weight	76%
Solids by Volume	57%
Theoretical Coverage*	914 ft ² /gal @ 1 mil
Dry Film Thickness / Coat	2.0–3.0 mils (50–75 microns)
Wet Film to Achieve DFT	3.5–5.3 mils (125–187.5 microns)
Coverage at DFT*	304–457 ft ² /gal @ 5.0–8.0 mils DFT
VOCs	2.62–2.71 lbs./gal (314–325 grams/liter) Activated
Reduction Solvents	DO NOT THIN
Clean-up Solvents	Diamond Vogel N-3023 Xylol
Induction Time	None
Mixing Ratio (by volume)	4 parts resin to 1 part cure
Pot Life **	8–10 hours at 70°F (21°C) and 50% Relative Humidity
Drying Time*** ASTM D1640-83 reapproved 1989	Set to Touch: 20 minutes at 70°F (21°C) and 50% Relative Humidity Recoat Minimum: 4 hours at 70°F (21°C) and 50% Relative Humidity Recoat Maximum: 6 months at 70°F (21°C) and 50% Relative Humidity

* Coverage rates are estimates based on the products volume solids and make no allowance for material loss during application. Actual spread rates may vary dependent on applicator experience, surface porosity and texture.

** Extreme temperatures can dramatically shorten pot life.

*** Dry times vary with surface temperature, air movement, humidity and film thickness.

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Performance Characteristics

Mult-E-Poxy 240 meets or exceeds the following performance testing criteria:

Test Name	Test Method	Results
Abrasion Resistance	ASTM D 4060, CS-17 Wheel 1kg Load, 1000 Cycles	156 mg loss
Cyclic Weathering	ASTM D-5894 2,000 hours	No blistering, face rust rated 10, 1 mm scribe creepage.
Impact Resistance	ASTM 2794	Direct 60 in./lbs. Reverse 10 in./lbs.
Heat Resistance	ASTM D 2485 High Temperature Service	Passes at 250°F (121°C)
Pencil Hardness	ASTM D 3363	H-2H
Corrosion Resistance	ASTM B 117-94 Salt Spray (Fog) Test 500 hours	No face blistering, no face rust, 1–2 mm scribe creepage.
Moisture Condensation	ASTM D4585 1008 hours	No face blistering, no face rust.

Chemical Resistance for Splash and Spillage

The information included in this chart reflects Mult-E-Poxy 240's resistance to these chemicals in environments where the coating may periodically come in contact with such materials. Cleaning and general maintenance will prolong the integrity of all epoxy coatings. For more detailed information, contact your local Diamond Vogel sales representative.

<u>Solvents:</u>	<u>Rating</u>	<u>Salts and Bases:</u>	<u>Rating</u>	<u>Miscellaneous:</u>	
MEK	E	Sodium Hydroxide 10% (NaOH)	VG	Bleach	G
Toluene	E	Sodium Hydroxide 50% (NaOH)	E	Dowanol PM	VG
Xylene	E	Ammonium Hydroxide 10% (HH4OH)	E	Water	E
Unleaded Gas	E	Ammonium Hydroxide 28% (HH4OH)	E	Hydrogen Peroxide 3%	E
Denatured Alcohol	E	<u>Acid:</u>		Povidone Iodine 10% (Betadine)	G
Methanol	G	Acetic Acid 5%	VG	TSP 1%	E
Mineral Spirits	E	Acetic Acid 10%	G	TSP 10%	E
Triethylamine	E	Phosphoric Acid 10%	VG	Windex w/AMD	E
N-Butanol	VG	Phosphoric Acid 50%	G		
MIBK	E	Phosphoric Acid 85%	G		
5% Phenol PM Acetate	VG	Lactic Acid	E		
Isopropyl Alcohol	E	Oleic	E		
Butyl Cellosolve	VG				
Perchlorethylene	E				
Ethylene Glycol	E				

Rating: E - Excellent, VG - Very Good, G - Good

Qualifications

Performance criteria meet or exceed Master Painters Institute (MPI) #98 approval standards.

VOC Compliant: AIM, OTC

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Surface Preparation

All surfaces must be clean, sound, dry and free of all dirt, dust, wax, oil, grease, chalk and any other contamination that would interfere with new coating adhesion. Bare surfaces must be properly prepared. See "System Selector" for appropriate primer to use depending on the substrate.

Masonry Surfaces: (Poured Concrete, Concrete Block) New concrete must cure for a minimum of 30 days at 72°F (22°C) prior to coating application. Level all surface projections and mortar spatters by stoning. Rake mortar joints clean and remove all soluble salts. Mult-E-Poxy 240 is self-priming on masonry surfaces; however, see "System Selector" for additional recommendations.

Ferrous Metal Surfaces: Abrasive blast new steel to SSPC-SP-6, Commercial Blast Cleaning. Use proper abrasive to achieve an average of 1.5 to 2.0 mil profile. Blasted surfaces should be primed before flash rusting occurs. If blasting is not practical, remove loose rust and mill scale per SSPC-SP-2, Hand Tool Cleaning, and SSPC-SP 3, Power Tool Cleaning.

New Galvanized & Aluminum Surfaces: Remove surface contamination or passivators by scrubbing with a cleaning and etching solution or blast per SSPC-SP-7, Brush-Off Blast Cleaning.

Weathered Galvanized & Aluminum Surfaces: Power or hand wash with detergent and rinse thoroughly. The surface must be dull and have a profile. Use a cleaning and etching solution if needed or blast per SSPC-SP-7, Brush-Off Blast Cleaning.

Previously Painted Metal Surfaces: Power or hand washing is recommended to remove contamination. If oil or grease is present, use of a cleaner / degreaser is required. All cleaning residue must be completely rinsed from the surface. Allow to dry. Remove all loose coatings, rust and corrosion by scraping, sanding or other abrading method as per SSPC-SP-2, Hand Tool Cleaning or SSPC-SP-3, Power Tool Cleaning, or abrasive blast as per SSPC-SP-6, Commercial Blast Cleaning. Use sandpaper to dull slick, glossy and/or non-porous surfaces with sandpaper.

Mildew: Remove by using a solution of one part household bleach and three parts water. Apply to mildewed area and scrub. Allow solution to remain on the surface for 3 to 5 minutes and then rinse completely and allow to dry before coating application.

Application

Part A (resin) and Part B (cure) are packaged in premeasured kits. The mixing ratio is 4 parts A to 1 part B. Mix Part A and Part B separately using an explosion-proof power drill and blade type mixer. Add Part B to Part A and thoroughly mix and blend using an explosion-proof power drill and blade type mixer. Mix only the amount that can be used within the estimated pot life. For optimum application, air and surface temperature should be from 50° to 90°F (10° to 32°C) and at least 5°F (3°C) above the dew point. Above 122°F (50°C), sagging may occur. A minimum surface temperature of 50°F (10°C) for eight (8) hours after application is recommended to achieve proper film formation.

Brush or Roller: Apply product in full even coats. Maintain a wet edge. To ensure adequate film build, two coats are recommended when applying by brush or roller (see the drying times chart for recoat period). Allow the product to dry between coats. A good quality bristle brush will make application easier. Select a roller cover suited for the texture of the surface to be coated.

Airless Spray: Flush airless lines with Gun Cleaner or MEK. Equipment must be clean prior to start. Apply a wet coat in even, parallel passes with 50% overlap to avoid bare areas and pinholes.

Tip Orifice	Atomizing Pressure	Material Hose ID	Manifold Filter
0.013" to 0.019"	2500–3000 PSI	1/4" or 3/8"	60 mesh

Packaging

Shipping Weight

Product	1 Gallon Kit	5 Gallon Kit	Product	1 Gallon Kit	5 Gallon Kit
Part A Resin	1 Gallon (80 % filled)	5 Gallon (3/4 filled)	Mult-E-Poxy 240	12.44 lbs. (5.643 kg)	60.20 lbs. (27.31 kg)
Part B Cure	1 Quart (80 % filled)	1 Gallon (full filled)			

Storage

Two years from date of manufacture when maintained in protected area at a temperature of 40° to 100°F (4° to 38°C). Subject to inspection thereafter.

TECHNICAL DATA**Safety Precautions**

***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 wet mop. Before you start, find out how to protect yourself and your family by contacting the national Lead Information Hotline at 1-800-424-LEAD or log on to www.epa.gov/lead.

Paint products contain chemical ingredients, which are considered hazardous. Prior to use, read container label warnings and the current Safety Data Sheet for important health and safety information. Ensure these instructions are practiced during product application and cure. **Keep out of the reach of children.**

This finish may become slippery when wet. The use of a non-slip additive is recommended when used on horizontal surfaces such as porches, patios, steps or any other floor areas which are exposed to moisture. However, Diamond Vogel makes no guarantees or claims that this will prevent accidents. Diamond Vogel's liability is limited to the purchase price of the product.

Safety Data

"Safety Data Sheets" are available from your Diamond Vogel Representative or the Diamond Vogel website at www.diamondvogel.com. Prior to use of this product, obtain and review the Safety Data Sheet for health and safety information. Read and observe all precautionary notices on container labels. **NOT INTENDED FOR RESIDENTIAL USE.**

Limited Warranty

The technical data and suggestions for use contained in this document are true and correct to the best of our knowledge at the date of issuance. The statements of this document do not constitute a warranty, expressed or implied, as to the performance of these products. Since Diamond Vogel does not control the application of its products, or the condition of the surfaces to which they are applied, Diamond Vogel's liability will under no circumstances exceed replacement of the product. **All technical information is subject to change without notice.**

Additional Information

- Yellowing is a normal occurrence with epoxy products. The use of heaters that emit carbon dioxide and carbon monoxide during application may cause excessive yellowing to occur.
- Epoxies will chalk and fade with extended exposure to sunlight.
- Cautions and Warnings information is located on the back panel of each product label.