



PRODUCT PROFILE

**GENERIC DESCRIPTION** Modified Aliphatic Amine Epoxy Mortar

**COMMON USAGE** A 100% solids, hybrid epoxy mortar designed for severe wastewater immersion and fume environments. Specifically formulated to withstand high levels of hydrogen sulfide gas (H<sub>2</sub>S), sulfuric acid (H<sub>2</sub>SO<sub>4</sub>), as well as other gases common to sewer exposures. Aggregate reinforcement provides additional resistance to abrasions and impacts.

**COLORS** 5022 Beige

COATING SYSTEM

**SURFACER/FILLER/PATCHER** 215, 217, 218

**PRIMERS** **Concrete:** Self-priming or Series 201

**TOPCOATS** Series 435

SURFACE PREPARATION

**STEEL** SSPC-SP5/NACE 1 White Metal Blast Cleaning with a 4.0 mil minimum angular anchor profile.

**CONCRETE** Allow new cast-in-place concrete to cure a minimum of 28 days at 75°F (24°C). Verify concrete dryness in accordance with ASTM F 1869 “Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride” (moisture vapor transmission should not exceed three pounds per 1,000 square feet in a 24 hour period), F 2170 “Standard Test Method for Determining Relative Humidity in Concrete using in situ Probes” (relative humidity should not exceed 80%), or D 4263 “Standard Test Method for Indicating Moisture in Concrete by the Plastic Sheet Method” (no moisture present). Prepare concrete surfaces in accordance with NACE No. 6/SSPC-SP13 Joint Surface Preparation Standards and ICRI Technical Guidelines. Abrasive blast, shot-blast, water jet or mechanically abrade concrete surfaces to remove laitance, curing compounds, hardeners, sealers and other contaminants and to provide a minimum ICRI-CSP 5 surface profile. Large cracks, voids and other surface imperfections should be filled with a recommended filler or surfacer.

**CMU** Allow mortar to cure for 28 days. Level protrusions and mortar spatter.

**ALL SURFACES** Must be clean, dry and free of oil, grease and other contaminants.

TECHNICAL DATA

**VOLUME SOLIDS** 100% (mixed)

**RECOMMENDED DFT** 1/8 inch or 125 mils (3,125 microns) minimum.

**CURING TIME**

Temperature	To Topcoat	To Place in Service	Maximum Recoat
75°F (24°C)	8 hours	2 days	7 days
55°F (13°C)	12 hours	3 days	7 days

**Note:** Curing time will vary with surface temperature, air movement, humidity and film thickness. **Note:** If more than 7 days have elapsed between coats, the Series 434 coated surface must be mechanically abraded before topcoating.

**VOLATILE ORGANIC COMPOUNDS** EPA Method 24: 0.15 lbs/gallon (18 grams/litre)

**HAPS** 0.06 lbs/gal solids

**THEORETICAL COVERAGE** 1,604 mil sq ft/gal (39.4 m<sup>2</sup>/L at 25 microns). See APPLICATION for coverage rates.

**NUMBER OF COMPONENTS** Three: Part A (Amine), Part B (Epoxy) and Part C (Aggregate)

**PACKAGING**

	PART A (Partially Filled)	PART B (Partially Filled)	PART C Aggregate	WHEN MIXED
Small Kit	1 gallon can	1 gallon can	23.3 lb box	2.5 gallons (9.5 L)
Large Kit	6 gallon pail	3 gallon pail	46.7 lb box	5.0 gallons (18.9 L)

**NET WEIGHT PER GALLON** 15.46 ± 0.25 lbs (7.01 ± .11 kg) (mixed)

**STORAGE TEMPERATURE** Minimum 40°F (4°C) Maximum 110°F (43°C)  
For optimum handling and application characteristics, both material components should be stored or conditioned between 70°F (21°C) and 80°F (27°C) 48 hours prior to use.

**SHELF LIFE** 12 months at recommended storage temperature.

**FLASH POINT - SETA** Part A: 170°F (77°C) Part B: 170°F (77°C)

**HEALTH & SAFETY** Paint products contain chemical ingredients which are considered hazardous. Read container label warning and Material Safety Data Sheet for important health and safety information prior to the use of this product.  
**Keep out of the reach of children.**

# PERMA-SHIELD H<sub>2</sub>S<sup>®</sup> | SERIES 434

## APPLICATION

**COVERAGE RATES**

Before commencing, obtain and thoroughly read the Series 434 Surface Preparation and Application Guide.

	Large Kit (5.035 Gal) (Approx.)	Small Kit (2.5 Gal) (Approx.)
At 1/8 " (3.2 mm)	64 sq ft (6.0 m <sup>2</sup> )	32 sq ft (3.0 m <sup>2</sup> )

**Note:** Application of coating below minimum recommended dry film thickness may adversely affect coating performance.

**WORKING TIME**

30 minutes at 77°F (25°C)

**MIXING**

Mix the entire contents of Part A and Part B separately. Add the contents of the can marked Part B to Part A and blend both components, using a minimum 10 amp, 3/4 inch heavy duty drill with an "H" paddle drywall mixing blade (i.e., M713 mixing paddle) for one minute. Gradually add all the Part C aggregate to the liquid mix while under agitation and blend for another one to two minutes or until a uniform consistency is achieved. During the mixing process, scrape the sides and bottom of the container to ensure all of Parts A, B and C are blended together. **Caution: Do not split kit, mix the entire kit as supplied. Do not reseat mixed material. An explosion hazard may be created.**

**THINNING**

Do not thin.

**APPLICATION EQUIPMENT**

**Spray Application:** Use air powered immersion tube a 12:1 ratio W/TA 600 or 9:1 410 pump. Spray application must be followed by troweling (see below). **Note:** For detailed instructions, refer to the Series 434 Surface Preparation & Application Guide.

**Trowel:** Mortar Hawk, steel concrete finishing trowels are required to spread the Series 434 to an even, minimum 1/8" thickness. For detailed instruction, refer to the Series 434 Surface Preparation & Application Guide.

**Finish Roll:** Use a high quality 1/4" nap, shed resistant, woven fabric roller, lightly dampened with No. 2 Thinner or No. 42 Thinner to backroll and finish trowel and spray/trowel applications.

**SURFACE TEMPERATURE**

Minimum of 50°F (10°C) Maximum of 130°F (54°C).  
The surface should be dry and at least 5°F (3°C) above the dew point.

**MATERIAL TEMPERATURE**

For optimum handling and application characteristics, both material components should be stored or conditioned between 70°F and 80°F (21°C and 27°C) 48 hours prior to use. Temperature will affect the workability. Cool temperatures increase viscosity and decrease workability. Warm temperatures will decrease viscosity and shorten the spray and pot life.

**HOLIDAY TESTING**

If required by project specifications, high voltage discontinuity (spark) testing shall be performed using a Tinker & Rasor AP/W High Voltage Holiday Tester, set at the voltage recommended in the Series 434 Surface Preparation and Application Guide.

**CLEANUP**

Flush and clean all equipment immediately after use with MEK or Tnemec's No. 4 Thinner. For spray applications, equipment must be flushed after every three to five kits of mixed material.

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