TNEMEC

PRODUCT DATA SHEET

PERMA-SHIELD H_2S™ SERIES 434

PRODUCT PROFILE

GENERIC DESCRIPTION Modified Aliphatic Amine Epoxy Mortar

COMMON USAGE This aggregate reinforced, 100% solids, hybrid epoxy mortar is designed for wastewater immersion/fume environments where hydrogen sulfide gas and sulfuric acid are present.

COLORS 5022 Beige

COATING SYSTEM

SURFACER/FILLER/PATCHER 63-1500, 218, 219

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 anchor profile.

CONCRETE Allow new concrete to cure 28 days. Verify dryness by testing for moisture with a "plastic film tape-down test" (Reference ASTM D 4263). If necessary for testing horizontal surfaces, perform "Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride" (Reference ASTM F 1869). Moisture content not to exceed three pounds per 1,000 sq ft in a 24 hour period. Shot-blast or mechanically abrade to remove laitance, form release agents, curing compounds, sealers and other contaminants and to provide surface profile (Reference SSPC-SP13/NACE 6, ICRI CSP5 or greater). Large voids, bugholes and other cavities should be filled with 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	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

Curing time will vary with surface temperature, air movement, humidity and film thickness.

VOLITILE ORGANIC COMPOUNDS 0.79 lbs/gallon (95 grams/litre)

HAPS 0.06 lbs/gal solids

THEORETICAL COVERAGE 1,604 mil sq ft/gal (39.4 m²/L at 25 microns). See APPLICATION for coverage rates.

NUMBER OF COMPONENTS Three: Part A, Part B and Part C

PACKAGING

	PART A (Partially Filled)	PART B (Partially Filled)	PART C Aggregate	WHEN MIXED
Small Kit	1 gallon can	1 gallon pail	One bag with premeasured aggregate	2.5 gallons (9.5 L)
Large Kit	6 gallon can	3 gallon can	One bag with premeasured aggregate	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 application properties, material temperature should be between 70°F (21°C) and 80°F (27°C) prior to application.

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.

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APPLICATION

COVERAGE RATES

GUIDE:

	Large Kit (5.035 Gal) (Approx.)	Small Kit (2.5 Gal) (Approx.)
At 1/8 " (3.2 mm)	64 sq ft (6.0 m²)	32 sq ft (3.0 m²)

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. **Mix the entire kit as supplied.**

THINNING

Do not thin.

APPLICATION EQUIPMENT

Spray Application: Use air powered immersion tube 11:1 Grover grout pump #397-042 or 9:1 WIWA 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.

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.