

Product Description

KM-1850 is a specially formulated, two component, 100% solids epoxy coating designed for use where a hard, durable, tile-like high gloss floor finish is desired. This low viscosity, self-leveling product can be applied at a dry film thickness of 10-60 mils in one coat. This 100% solids epoxy is ideal for use in confined areas where solvent odor is objectionable.

Performance Features

- Excellent Adhesion to Concrete
- Outstanding Chemical Resistance
- Outstanding Wear & Abrasion Resistance
- 100% Solids Formula
- No Strong Solvent Odors
- High Gloss Tile Like Finish
- USDA Acceptable

Compliance - Performance - Certification

- ✓ Meets CARB VOC Limits
- ✓ Meets SCAQMD VOC Limits
- ✓ Meets National AIM VOC Limits

Product Specifications

Resin Type:	Epoxy Amine
Color Range:	Lt. Gray, Med. Gray, Tile Red, Beige
Finish:	High Gloss
Drying Time: (75° F. & 50% R.H.)	To recoat 12-24 hours. Foot Traffic: 16-24 hours Heavy Traffic: 48-72 hours
Practical Coverage:	80-160 sq. ft. per gallon
Recommended Film Thickness:	Wet: 10-20 mils per coat Dry: 10-20 mils per coat
Solids by Volume:	100%
Mix Ratio:	3:1
Pot Life @ 75°F.:	20-30 minutes
Shelf Life:	Part A: 3 years Part B: 2 years
Sizes:	1 and 4 gallon kits
V.O.C.	<10 Grams per liter
Clean Up:	KM-SA-17 or KM-S-74

Test Data

Abrasion Resistance (ASTM D4060, CS 17 wheel, 1000 cycles, 1 KG load):	92 mg 5 trials
Adhesion (ASTM D4541, Elcometer 106, Bonderite 1000):	500 psi minimum
Bond Strength (ACI 503)	350 psi (concrete fails)
Flexibility (ASTM D522 Conical Bend Mandrel 180°)	Passes ½ inch
Impact Resistance (ASTM D2794):	Direct – 60 in. lb.
Pencil Hardness (ASTM D3363):	2H
Shore D Hardness (ASTM D2240):	75
Sward Hardness (ASTM D2134):	60
Tensile Strength (ASTM C307):	2,000 psi
Viscosity @ 75° F. (ETS-100)	Initial = 700 Centipoise

Surface Preparation

WARNING! If you scrape, sand or remove old paint from any surface, 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. Carefully clean up with a wet mop or HEPA vacuum. Before you start, find out how to protect yourself and your family by contacting the U.S. EPA/Lead Information Hotline at 1-800-424-LEAD (5323) or log on to www.epa.gov/lead.

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Concrete Floors:

Four types of surface preparation are recommended. Any one of the four surface preparations may be sufficient or a combination of the four may be required depending on the condition of the concrete surface.

1. High Pressure Wet Abrasive Blast Cleaning

All loose and unsound concrete must be mechanically removed down to sound concrete by means of power tool equipment, such as chipping/scaling hammers, rotary scalers, etc.

High pressure water blast with sand injection on all surfaces to remove all concrete laitance, contaminants, and other foreign deposits to provide a sound, clean surface. Use clean, dry air to blow down these areas to remove excessive moisture.

2. Acid Etch

Apply acid etching solution at the manufacturer's recommended spread rate. Work the solution into the concrete with a stiff broom or fiber brush. Allow solution to remain on the concrete surface for approximately 10 minutes, or until the effervescing and bubbling ceases. Then flush floor thoroughly with clean, fresh water to remove all laitance, dirt, and other foreign materials.

Random pH readings using distilled water should be made to insure all contaminants have been removed. A final pH between 7.0 and 8.5 is acceptable. **NOTE:** Do not allow the etching solution to dry on the floor before flushing off because dirt, etc., can be re-deposited in the pores of the concrete.

3. Vacuum Blast

All areas of the existing concrete shall be Vacuum Abrasive Blast cleaned using a Wheelabrator Blastrac Shot Blast Machine with Dust Collector. A proper anchor profile pattern shall be achieved to provide maximum adhesion of the recommended system. A thorough washing may be necessary prior to blasting to remove all foreign matter. Check with Blastrac Mfg. (www.blastrac.com) for proper shot and application procedures.

4. Dry Abrasive Blast

Abrasive blast concrete surface to remove all laitance, loose concrete, coating, sealers, etc. It is necessary to achieve a rough anchor pattern and get to sound concrete. All blast material and foreign matter must be removed before application.

In all cases of surface preparation, the pH should be checked. A pH reading of 7.0 to 8.5 is acceptable. Also, a "Water Dissipation Test" should be made on random areas of the floor to determine that the proper degree of porosity has been achieved. A "Vapor Barrier Test" should also be run on the concrete. New concrete must be cured at least a minimum of 28 days before applying a coating. All laitance, efflorescence, chemical contaminants, grease, oil, and other foreign material must be removed. The prepared surface must be clean, dry and structurally sound.

Carbon Steel:

Remove all oil, grease, dirt, and any chemical contaminants by solvent wipe, steam cleaning, or high pressure water blasting, or the combination of these three methods. Follow with an abrasive dry blast to achieve a "near white finish" as outlined in SSPC-SP10 specifications. All blasted surfaces must be primed within 4 hours of blasting to eliminate any rust-back. Acceptable primers are KM-15 or KM-100 Aluminum.

Mixing

KM-1850 is prepared by mixing 3 parts Base (Part A) to 1 part Hardener (Part B) with a slow speed power drill with a Jiffy Mixer. Do not vary mixing proportions. KM-1850 may be used immediately after 3 minutes of mixing, no further induction time is necessary. Pot Life is 20 – 30 minutes at 75° F.

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Application

For best results apply KM-1850 with a notched squeegee at 10-60 mils DFT or a ¼" - ½" roller at 10-20 mils DFT. After applying KM-1850 by squeegee or roller, immediately back-roll material with a metal porcupine roller to break up any air bubbles which may form by mixing or during application. If any concrete out-gassing has previously occurred, roll 1-2 coats of KM-155 Concrete Primer directly to the concrete surface before applying the KM-1850 to help reduce out-gassing. The KM-155 should be butterfly rolled into the concrete to provide uniform coverage. KM-155 Primer should be top coated while it is still "tacky". Refer to the KM-155 Technical Data Sheet for specific information on recoating.

The KM-1850 Coating has excellent "wetting out" properties, and has the capability of being applied directly to properly cleaned and porous concrete surfaces as a one coat system. However, a test sample of KM-1850 should be applied to assure that a uniform gloss finish is maintained and proper penetration and adhesion has been achieved. We still recommend the use of a concrete primer for over-all best results. Acceptable concrete primers for use under KM-1850 are KM-149, KM-155, and KM-1703. KM-1850 should not be used as a finish coat in direct sunlight. When applying over 20 mils an aggregate broadcast is usually recommended.

NOTE: For safety and product curing, proper ventilation is necessary throughout application and cure. When using pigmented Finish Coats, always be sure the batch numbers are all the same to provide a uniform color. Do not apply if the surface temperature is within 5° of the Dew Point. KM-1850 Base and Hardener should be stored at 75°-85°F to help maintain a lower, rollable viscosity. Do not apply when material is cold. Allow a minimum of 72 hours with good ventilation before putting floor back into service. If a non-skid finish is required, prepare a test patch for owner approval prior to application.

These systems are designed for application by professional experienced flooring contractors.

Precautions

KM-1850 is combustible. Keep away from all sources of ignition during storage, mixing, application and cure. The Hardener portion is corrosive. The Hardener (Part B) either alone or when mixed with Base (Part A) can cause eye and skin burns as well as allergic reactions. Wear safety glasses, gloves, and protective clothing when using KM-1850. See Material Safety Data Sheet for full safety precautions.

**KEEP OUT OF REACH OF CHILDREN
FOR PROFESSIONAL AND INDUSTRIAL USE ONLY**

Proper Disposal

For proper disposal of excess material, please contact your local city or county waste management agency.

Limited Warranty: The statements made on this bulletin, product labels or by any of our agents concerning this material are given for information only. They are believed to be true and accurate and are intended to provide a guide to approved construction practices and materials. As workmanship, weather, construction equipment, quality of other materials and other variables affecting results are all beyond our control, Kelly-Moore Paint Company, Inc., does not make nor does it authorize any agent or representative to make any warranty of MERCHANTABILITY OR FITNESS for any purpose or any other warranty, guarantee or representation, expressed or implied, concerning this material except that it conforms to Kelly-Moore's quality control standards. Any liability whatsoever of Kelly-Moore Paint Company, Inc. to the buyer or user of this product is limited to the purchaser's cost of the product itself.