

Product Description

KM-1703 is a low viscosity, 100% solids, solvent free, two component, Epoxy Primer. KM-1703 is designed for use under epoxy grouts, mortars, toppings, high performance coatings and lining systems. KM-1703 has been formulated to provide deep penetration into the concrete surface without the use of any solvent, therefore, eliminating any objectionable solvent odor, particularly inside buildings or around food processing and food storage areas. May also be used as a clear concrete floor sealer where slight ambering is acceptable.

Performance Features

- Excellent Adhesion to Concrete
- Good Chemical Resistance
- 100% Solids Formula
- No Strong Solvent Odors
- Excellent Primer for Concrete
- 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:	Clear, Gray
Finish:	High Gloss
Drying Time: (75° F. & 50% R.H.)	To recoat 12-24 hours.
Practical Coverage:	160-320 sq. ft. per gallon
Recommended Film Thickness:	Wet: 5-10 mils per coat Dry: 5-10 mils per coat
Solids by Volume:	100%
Mix Ratio:	3:1
Pot Life @ 75°F:	20 minutes
Shelf Life:	Part A: 3 years Part B: 2 years
Sizes:	1 and 4 gallon kits
V.O.C.	0 Grams per liter
Clean Up:	KM-SA-17 or KM-S-74

Test Data

Bond Strength (ACI Test #59-43)	350 psi – Concrete Failed
Shore D Hardness (ASTM D2240)	81
Abrasion Resistance (ASTM D4060, CS 17 wheel, 1000 cycles)	89 mg 5 trials
Adhesion (ASTM D4541, Bonderite 1000)	500 psi minimum
Flexibility (ASTM D522, 180° Bend)	Passes ½ inch
Impact Resistance (ASTM D2794)	Direct 70 in. lb.
Pencil Hardness (ASTM D3363)	2H
Sward Hardness (ASTM D2134)	58
Tensile Elongation (ASTM D638)	3.5%
Tensile Strength (ASTM D638)	6200 psi

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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.

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.

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Mixing

KM-1703 is prepared by mixing 3 parts Base (Part A) to 1 part Hardener (Part B) by volume with a Power Jiffy Mixer. Do not vary mixing proportions. Blend the two components together for 2-3 minutes. KM-1703 may be used immediately after mixing, no thinning or induction time is necessary. Pot Life is 20 minutes at 75° F.

Application

For best results, apply KM-1703 with a short nap roller or squeegee at 160-320 sq. ft. per gallon (5-10 mils/gallon). After applying KM-1703, immediately back-roll material with a spike or porcupine roller to break up and air bubbles formed by mixing or application. If concrete out-gassing may occur, roll 1-2 coats of KM-149 or KM-155 Concrete Primer directly to the concrete surface to help reduce out-gassing prior to application of the KM-1703. The primer should be butterfly rolled to provide uniform coverage. Refer to the technical data sheets for these primers.

Do not apply unless the surfaces temperature is between 50 and 100° F. Do not apply if the surface temperature is within 5° F. of the dew point. KM-1703 should be stored at 75-85° F. to maintain a lower, rollable viscosity. Do not apply when material is cold. Allow a minimum of 72 hours with good ventilation before putting the 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.

Note: For safety and product curing, proper ventilation is necessary throughout application and cure.

Precautions

KM-1703 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-1703. 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.