

Epoxy Primer - K-040

Description:

Epoxy Primer K-040 is a 100 % solids, low viscosity, two-part epoxy for use in restoring concrete floors and concrete surfaces prior to application of new toppings or as a “stand alone” sealer. Epoxy Primer K-040 ensures strong adhesion between an epoxy topcoat and the substrate. It may also be used to bond new concrete to old concrete. Epoxy Primer K-040's unique chemistry permits rapid displacement of substrate moisture, allowing for use on damp surfaces. **DO NOT APPLY EPOXY PRIMER K-040 OVER STANDING WATER!**

Product

Advantages:

- ADHESION TO DAMP CONCRETE
- 100 % SOLIDS, NO VOC'S, NO B.G.E.¹
- BONDS NEW CONCRETE TO OLD
- CONVENIENT MIX RATIO
- STRENGTHENS POROUS SUBSTRATES

Handling

Properties:

COLOR	Light Amber
MIXING RATIO, pbv	2/1
WORKING TIME, min	20
GEL TIME, min	25
TACK-FREE TIME, h	6
FULL CURE (Light Traffic), h	12-16
COVERAGE* @ 5 mil (0.13 mm), ft ² /gal (m ² /l)	320 (7.84)

*Varies with porosity of concrete

Chemical Resistance:

Excellent Resistance		Very Good	Good	Not Recommended
Motor Oil	10 % Nitric Acid	Xylene	10% Acetic Acid	Toluene
Kerosene	50 % Sulfuric Acid			Methyl Alcohol
Diesel Fuel	30 % Citric Acid			Unleaded Gasoline
Ethylene Glycol	50 % Sodium Hydroxide			Methyl Ethyl Ketone
Bleach	10 % Hydrochloric Acid			Methylene Chloride
Water	10 % Lactic Acid			Trichloroethylene
Skydrol				

The above recommendations are based on a 28 day immersion @ 72°F (22°C).

Surface

Preparation:

Epoxy Primer K-040 is used to strengthen and seal a porous concrete substrate, therefore, adhesion is paramount. To achieve excellent adhesion, the substrate should be free of all loose and foreign material and should be roughened slightly to provide a coarse profile by shot blasting or other mechanical method.

Before blasting, any contaminates on/in the concrete must be identified. Oils, grease fats, waxes or other contaminates must be removed prior to roughening the concrete. These can be removed with an application of warm (120-140 °F or 49-60 °C) caustic detergent, steam cleaning or pressure washing. Degrease the floor; follow with a hot water rinse. Repeat this procedure until the water does not "bead up" on the concrete.

Shot blasting using self-propelled, self-contained equipment is the recommended preparation method. **NEW CONCRETE MUST CURE A MINIMUM OF 28 DAYS PRIOR TO THE APPLICATION OF ANY EPOXY. CONCRETE MUST BE TESTED FOR MOISTURE AND VAPOR TRANSMISSIONS BEFORE COATING.**

1 - Butyl Glycidyl Ether. The EPA (SARA Title III, section 312) lists BGE as “Toxic” (per ANSI Z129.1) by skin absorption and an immediate health hazard.

Mixing:

Epoxy Primer K-040 is a two component system. Both components (liquids A and B) should be at 70-90°F (21-32 °C) prior to mixing. Pour the hardener (B side) into the resin (A side) and blend thoroughly using a mixing paddle and slow speed hand drill for 3-5 minutes. Mix at slow speeds (less than 500 rpm's) to avoid air entrainment. Do not mix more material than can be used within the stated working time. Remember - you will have less working time at higher temperatures.

Epoxy Primer K-040, before it has hardened, can be removed from tools with Enviro-Clean or warm soapy water.

Application:

Relative humidity and dew point must be known before application to avoid adhesion failures. The dew point is used to predict the substrate temperature at which air begins to condense, in the form of water, on the substrate. Never apply a coating unless the concrete surface temperature is 5 °F (2 °C) above the dew point. A dew point calculation chart is available from a Copps Technical Representative.

Epoxy Primer K-040 can be applied by brush or short nap roller. When the primer has "tacked up" in approximately 4 hours, apply the epoxy topcoats. Copps epoxy topcoat can be applied in as little as 4 hours at 72 °F (22 °C). Do not thin primer! Do not apply to concrete colder than 50 °F (10 °C) as insufficient curing may result.

BONDING FRESH CONCRETE TO HARDENED CONCRETE: In accordance with ACI 503R (7.2.6). Apply K-040 to the hardened "old" concrete by spray or short nap roller. Apply the fresh concrete to the wet or tacky primer; do not apply concrete to hardened primer. **NOTE:** When vibrators are used it is essential to allow the primer to reach a "tacky" stage, since vibration can, by emulsifying the liquid primer, displace it from the existing concrete; this will result in a weak bond.

SAFETY PRECAUTIONS

Avoid breathing of vapors. Forced local exhaust is recommended to effectively minimize exposure. NIOSH approved, organic vapor respirators and forced exhaust are recommended in confined areas, or when conditions (such as heated polymers, sanding) may cause high vapor concentrations. Do not weld on, burn or torch on or near any epoxy material. Hazardous vapor is released when an epoxy is burned. Avoid skin or eye contact. Wash skin with soap and water if contact occurs. If eye contact occurs flush with water for 15 minutes and obtain medical attention. Read and understand all cautions on can labels and safety data sheets before using this material.

WARRANTY AND DISCLAIMER

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