

KEMKO® 064 Utility Coat

Flexible
Epoxy Utility
Coating/Surfacing

Type:	Two-component, solvent-free, epoxy resin / hardener.
Primary Use:	Protective coating; Impact, abrasion and skid resistant surfacing. Bonding precast concrete curbing.
Substrates:	Concrete, masonry, stone, asphalt and steel. Dry surfaces only.
Minimum Temp:	Installation: 50° deg F, Cure: 50° deg F (substrate temperature).
Color:	Black and concrete gray (blue-gray).
Finish:	Smooth or variable texture with aggregate broadcast.
Coverage:	As a surfacing, 25 - 40 sq ft / gal.
Thickness:	Single or multiple coats @ 40 - 60 mils per coat.
Shelf Life:	Three years minimum in sealed containers (see below for conditions).

The properties listed in this bulletin are typical and descriptive of the product and should not be used for specification purposes. For specification preparation, reference the specification of this product available from ChemCo Systems, Inc. This product is available only through KIP System (KEMKO® Injection Process) licensee/applicators.

Description: KEMKO® 064, Utility Coat is a two-component, fast curing, flexible, epoxy coating with resistance to most aircraft and automotive chemicals. When seeded or blended with aggregate, it can be used on properly prepared asphalt and concrete pavements and on steel decks to provide a pedestrian or vehicular traffic surface with excellent slip/skid resistance and wear characteristics. Additional uses include bonding of precast concrete curbing to concrete and asphaltic pavements.

Features: Unlike many other flexible exterior coatings, KEMKO 064 exhibits excellent resistance to water, aqueous salt solutions, most automotive and aircraft fluids, does not embrittle when exposed to sunlight for long periods of time and is environmentally safe. It has a convenient 1:1 (by vol.) mixing ratio and is formulated for single coat applications. The components do not contain volatile solvents (VOC's).

Limitations: Substrates must be dry. The minimum substrate temperature during application and initial cure period (18 - 36 hr) is 50 deg F. Apply the material after the daily substrate temperature cycle has reached its peak. Substrates on or below grade must have a functioning vapor barrier to minimize the potential for blistering or delaminating of the applied coating. Do not add solvents or otherwise thin this material.

Packaging: Standard package sizes of Part A + Part B are 2, 10 and 100 gallon units.

Shelf Life: Three years minimum in unopened, original containers when stored between 50 and 90 deg F in a dry place away from sunlight. Remixing of components may be required upon long-term storage.

Chemical Resistance: KEMKO 064 is resistant to a wide range of commonly used aircraft and automotive chemicals including jet fuels, gasoline, selected hydraulic fluids, and anti-freeze and battery acid. It has limited resistance to hydrocarbon solvents. Performance is a function of the specific chemical and concentration, ambient and solution temperatures, exposure times and housekeeping procedures. For information on specific chemicals and exposure conditions, contact a ChemCo Systems, Inc., technical representative.

Color Selection: Standard colors are black and concrete gray (blue-gray). Custom colors are available and may require minimum quantities and/or slightly higher cost.

Surface Preparation: Substrate surfaces must be dry, sound and free of all bond-inhibiting substances. Prepare concrete surfaces in accordance with ASTM D 4259, 'Standard Practice for Abrading Concrete,' or ACI 503R, Chapter 5, "Preparing Surfaces for Epoxy Compound Application," and ChemCo Systems, Inc.'s specific recommendations. Properly prepared concrete surfaces should have a minimum strength of 250 psi in direct tension. Prepare asphalt pavements by scrubbing with a 2% solution of non-ionic detergent followed by high pressure water rinsing until the surface no longer feels slippery to the touch. A combination of detergent wash and mechanical cleaning should be employed in areas where an excessively heavy cake of oil and grime has been deposited. Properly prepared asphalt surfaces should have a minimum strength of 100 psi at 73° ± 4° F in direct tension. Steel surfaces should be cleaned to 'white metal' according to SSPC SP 5.

Mixing: KEMKO 064 is a two-component adhesive. The resin to hardener (Part A:Part B) mix ratio is 1:1, by volume. Premix the individual components before drawing from bulk packaging. Wear safety glasses and clean neoprene rubber gloves when handling the material. Transfer the appropriate quantities of Part A and Part B into a mixing container. Use quantities that can be applied before the potlife of the mixed material expires. Blend thoroughly using a Jiffy mixer blade attached to a low speed (350 - 750 rpm) electric or pneumatic drill. Proper mixing will take 2 - 3 minutes.

Installing: Pour the mixed material onto the substrate and spread to the desired coverage with a V-notch trowel or squeegee. Allow the coating to become tacky to tack-free (3 - 6 hr @ 70° F) before applying the next coat. Avoid excessive cure times between coats. Aggregate, if used, must be broadcast onto the KEMKO 064 within 15 minutes of applying the coating. The recommended aggregate size is #6x12 or #8x16 mesh. Typical aggregate broadcast rates are 1.25 - 1.75 lb/sq ft. For vehicular surfaces, use of a polish resistant aggregate, e.g., aluminum oxide, silicon carbide, blast furnace slag, trap rock, etc., is recommended for maintenance of long-term skid resistance. For additional application information, see ACI 503R, Chapter 7, "Applying Epoxy Compounds."

Yield: The following material estimates do not take into consideration material lost in mixing and application and excess material required for filling rough surfaces.

Coating Thickness, mils.	Coverage, square feet/gallon
40	40
50	32
60	28
65	25



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Typical Properties (1)

Property	Test Method	Value
Mix Ratio, A:B,	by vol	1:1
	by wt	100:79
Color:	Part A	Concrete blue-gray or black
	Part B	Clear amber
	Mixed	Concrete blue-gray or black
Weight per Gallon, lb:	Part A	9.8
	Part B	7.8
	Mixed	8.8
Viscosity, cp:	Part A	4000
	Part B	4500
	Mixed	4300
Gel Time, 200 g, minutes	ASTM D 2471	16
Tensile Strength, psi	ASTM D 638	1400
Elongation at Break, %	ASTM D 638	93
Taber Abraser, mg loss	ASTM D 4060	120 (2)

(1) Cure schedule, 7 days at 73° ± 4° F and test temperature, 73° ± 4° F.

(2) CS-17 wheels, 1000 g load, 1000 cycles.

Clean up: All tools and equipment must be cleaned before the mixed material cures. Cleaning can be facilitated with a solvent such as acetone or heavy-duty detergents. Cured material may be removed from equipment and tools by soaking in an epoxy stripper.

Handling and Toxicity: This bulletin does not accompany the product when sold. For hazard warnings, safe handling and first aid instructions. **READ CAREFULLY THE MATERIAL SAFETY DATA SHEETS AND CONTAINER WARNING LABELS.**

Part A: Liquid epoxy resin, HMIS Health Hazard Rating- 2 (Moderate Hazard). Warning! Causes eye and skin irritation. May cause allergic skin reaction, Harmful if swallowed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling, Avoid prolonged or repeated contact with skin.

Part B: Liquid epoxy hardener, HMIS Health Hazard Rating- 2 (Moderate Hazard). Contains alkaline amines. Warning! Causes severe eye and skin irritation, May cause allergic skin and respiratory reaction, Combustible, corrosive. Do not get in eyes or skin or on clothing. Avoid breathing vapor, Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling. Keep away from heat and open flame.

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