



# Specialty Flooring Products

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## TECHNICAL DATA: WATER BASED EPOXY COATING

### WATER BASED EPOXY COATING

NC- Water Based Epoxy Coating (NC-WBE) is a two component high strength, moisture tolerant, water based epoxy coating. NC-WBE has excellent chemical resistance, abrasion resistance, and substrate penetration. This product is a stand alone coating when installed in multiple coats. NC-WBE is suitable as a topcoat.

#### RECOMMENDED USES

Recommended for priming concrete, wood, or masonry substrates. NC-WBE is resistant to many traditional solvents and chemicals; see Chemical Resistance chart below.

### GENERAL PRODUCT DATA

#### SOLIDS BY WEIGHT:

Mixed = 53% (colors); 45% (clear); (+, - 2%)

#### SOLIDS BY VOLUME:

Mixed = 41% (colors); 36% (clear); (+, - 2%)

#### VOLATILE ORGANIC CONTENT:

Colors = 1.01 pounds per gallon (mixed)

Clear = 1.0 pounds per gallon (mixed)

#### RECOMMENDED FILM THICKNESS:

5 -7 mils per coat wet thickness (yields 2-3 mils dry)

#### COVERAGE PER GALLON:

229 to 320 square feet @ 5-7 mils wet thickness

#### PACKAGING INFORMATION

2 gallon and 5 gallon kits (volume approx.)

#### SHELF LIFE:

1 year in unopened containers

#### STANDARD COLORS:

Off white, light gray, medium gray, tile red, beige, and amber clear. NOTE: The clear (gardner 11) is not water clear and is not suitable for top coating over previously color coated floors. The clear is suitable as a primer or concrete sealer only.

#### FINISH CHARACTERISTICS:

Satin gloss (40-80 at 60 degrees @ Erichsen glossmeter)

#### IMPACT RESISTANCE:

Gardner Impact, direct = 50 in.lb. (passed)

#### ABRASION RESISTANCE:

Taber adrasor CS-17 calibre wheel with 1000 gram total load and 500 cycles = 54 mg loss

#### FLEXIBILITY:

No cracks on a 1/8" mandrel

#### ADHESION:

425 psi @ elcometer (concrete failure, no delamination)

#### VISCOSITY:

Mixed = 900-1200 cps (colors); 400-900 cps (clear) (typical)

#### DOT CLASSIFICATIONS:

Not regulated

#### MIX RATIO:

Colors= 8.55# part A (.80 gallons, approximate) to 1.75# part B (.20 gallons, approximate)

Clear= 6.55# part A (.80 gallons, approximate) to 1.90# part B (.20 gallons, approximate)

#### CURE SCHEDULE:

Pot life – 1 gallon volume ..... 1.0 – 1.5 hours

Tack free (dry to touch)..... 5-8 hours

Recoat or topcoat..... 7-10 hours

Light foot traffic.....16-24 hours

Full cure (heavy traffic).....2-7 days

#### APPLICATION TEMPERATURE:

55-90 degrees F with relative humidity below 75%

#### CHEMICAL RESISTANCE:

REAGENT	RATING
acetic acid 5%	2
xylene	2
mek	1
gasoline	2
10% sodium hydroxide	3
50% sodium hydroxide	2
10% sulfuric	2
10% hrdochloric acid	2
20% nitric acid	1
ethylene glycol	3

Rating key: 1 - not recommended, 2 - 2 hour term splash spill, 3 - 8 hour term splash spill, 4 - 72 hour immersion, 5 - long term immersion. NOTE: extensive chemical resistance information is available through your sales representative.

#### PRIMER:

Required none

#### TOPCOAT:

Optional – Many products are suitable as topcoats including multiple coats of this product. For added chemical resistance, color stability or UV stability, topcoat with a suitable aliphatic urethane.

#### LIMITATIONS:

- \* Color and gloss may be affected by humidity, low temperatures, chemical exposure or sodium vapor lighting.
- \* Product will yellow in the presence of UV light
- \* For best results use a squeegee and / or 1/4" or 3/8" nap roller.
- \* Substrate must be sound and in good condition or coating to be applied
- \* Substrate temperature must be 5°F above dew point.
- \* All new concrete must be cured for at least 28 days
- \* Product color will vary from batch to batch. Use only product from the same batch for an entire job.
- \* Improper mixing or too thick of an application may result in product failure!!
- \* Light or bright colors (white, safety colors etc.) may require multiple coats or a topcoat to achieve a satisfactory hide, depending on the substrate.
- \* Physical properties listed on this technical data sheet are typical values and not specifications.
- \* See reverse side for limitations of our liability and warranty.
- \* See reverse side for application instructions.

# WATER BASED EPOXY COATING MIXING AND APPLICATION INSTRUCTIONS

**PRODUCT STORAGE:** Store product in an area so as to bring the material to normal room temperature before using. Continuous storage should be between 60 and 90 degree F. Keep from freezing.

**SURFACE PREPARATION:** Surface preparation will vary according to the type of complete system to be applied. For a one or two coat thin build system (3-10 mils dry) we recommend either mechanical scarification or acid etching until a suitable profile is achieved. For a complete system build higher than 10 mils dry, we recommend a fine brush blast (shot blast). All dirt, oil, dust, foreign contaminants and laitance must be removed to assure a trouble free bond to the substrate. A test should be made to determine that the concrete has an appropriate vapor barrier. This can be done by placing a 4'X4' plastic sheet on the substrate and taping down the edges. If after 24 hours, the substrate is still dry below the plastic sheet, then the substrate does not show signs of eventual hydrostatic pressure problems that may later cause disbanding. However, this product can be applied to a damp floor as long as there are not standing puddles. For applications directly over concrete, Testing should be performed to confirm a moisture vapor emission rate below 5 lb/24hr/1000 ft<sup>2</sup> per ASTM F1869

**PRODUCT MIXING:** This product comes pre-packaged by weight. Kits should be mixed in their entirety. If partial kits are to be used, refer to the front of this technical data for proper weight mix ratios. After the two parts are combined, mixes well with slow speed mixing equipment such as a jiffy mixer until the material is thoroughly mixed and streak free. This product is an emulsion product and should be mixed well before using.

**PRODUCT APPLICATION:** The mixed material can be applied by brush or roller. Maintain temperatures within the recommended ranges during the application and curing process. Apply material with relative humidity within the parameters shown on the technical data. When the end of the pot life has been reached, you will find that the material becomes hard to apply and will actually tend to roll back up onto the

**PRODUCT APPLICATION (CONT'D):** roller. Do not try to continue application when the coating has reached this step. Applications made at different times with differing environmental conditions, may show slight variations in gloss.

**RECOAT OR TOPCOATING:** If you opt to recoat or topcoat this on product, you must first be sure that all of the solvents and water have evaporated from the coating during the curing process. The information the front side are reliable guidelines to follow. However, it is best to test the coating before recoating or topcoating. This can be done by pressing on the coating with your thumb to verify that no fingerprint impression is left. If no impression is created, then the recoat or topcoat can be started. Always remember that colder temperatures will require more cure time for the product before recoating or topcoating can commence. Before recoating or topcoating, check the coating to insure no epoxy blushes were developed (a whitish, greasy film or deglossing). If a blush is present, it must be removed prior to topcoating or recoating. A standard type detergent cleaner can be used to remove any blush. Many epoxy overlays and coatings as well as urethanes are compatible for use as a topcoat for this product as well as multiple coats of this product.

**CLEANUP:** Use PM solvent

**FLOOR CLEANING:** Caution! Some cleaners may affect the color of the floor installed. Test each cleaner in a small area, utilizing your cleaning technique. If no ill effects are noted, you can continue to clean with the product and process tested.

**RESTRICTIONS:** Restrict the use of the floor to light traffic and non-harsh chemicals until the coating is fully cured (see technical data under full cure). It is best to let the floor remain dry for the full cure cycle.

## Warranty

Since no control is exercised over product use, The Nikka Corporation warrants that its products are manufactured free from defect and are consistent and within manufacturing tolerances on our data sheets. No other oral or written representation or statement of any kind, expressed or implied, now or hereafter made is authorized or warranted by The Nikka Corporation. This product is supplied on the condition that you shall make your own tests to determine the suitability of our product for your particular use. The Nikka Corporation shall have no liability for incidental or consequential damage, direct or indirect. Our liability is limited to price of or replacement of our product at our option. By accepting delivery of our product means that you have accepted the terms of The Nikka Corporation Warranty.

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