



# Specialty Flooring Products

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## TECHNICAL DATA: HIGH BUILD EPOXY

### HIGH BUILD EPOXY

NC- High Build Epoxy Top Coat (NC-HBET) is a two component 100% solids colored epoxy coating. It is designed for applications where a thick mil / high build high performance impact resistant floor is required. This product is a stable color fast epoxy.

### RECOMMENDED USES

Use as a high build topcoat or basecoat on concrete or masonry surfaces.

### GENERAL PRODUCT DATA

**SOLIDS BY WEIGHT:**

100% (+/- 1%)

**SOLIDS BY VOLUME:**

100% (+/- 1%)

**VOLATILE ORGANIC CONTENT:**

Nearly zero pounds per gallon

**RECOMMENDED FILM THICKNESS:**

8-30 mils

**HARDNESS:**

Shore D = 80

**PACKAGING INFORMATION**

3 gallon kits (2.9 – 3.0 gallons net approximately)

15 gallon kits (14 – 15 gallons net approximately)

**SHELF LIFE:**

1 year in unopened containers

**STANDARD COLORS:**

White, off white, light gray, medium gray, tile red, and beige

**VISCOSITY:**

Mixed = 1300-2300 cps (typical, most colors)

**ABRASION RESISTANCE:**

Taber abraser CS-17 calibrase wheel with 1000 gram total load and 500 cycles = 32 mg loss

**FINISH CHARACTERISTICS:**

Gloss (70-95 at 60 degrees @ Erichsen glossmeter)

**IMPACT RESISTANCE:**

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

**COVERAGE PER GALLON:**

53-130 sqft per gallon @ 12-30 mils

**FLEXURAL STRENGTH:**

5,400 psi @ ASTM D790

**ADHESION:**

450 psi @ elcometer (concrete failure, no delamination)

**MIX RATIO:**

12 pounds (1 gallon) part A to 4.15 pounds (.50 gallons) part B (volumes approx.) (standard colors)

**COMPRESSIVE STRENGTH:**

9,100 psi @ ASTM D695 – 1/2 "X 1/2" bars

**ULTIMATE ELONGATION:**

3.1%

**TENSILE STRENGTH:**

4,800 psi @ ASTM D638

**DOT CLASSIFICATIONS:**

Part A "not regulated"

Part B "CORROSIVE LIQUID N.O.S., 8, UN11760, PGIII"

**CURE SCHEDULE (70°):**

Pot life – 1 1/2gallon volume ..... 30-50 minutes

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

Recoat or topcoat..... 8-12 hours

Light foot traffic.....12-14 hours

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

**APPLICATION TEMPERATURE:**

60-90 degrees F with relative humidity below 85%

**CHEMICAL RESISTANCE:**

REAGENT	RATING
xylene	3
trichloroethylene	2
methanol	1
ethyl alcohol	2
skydrol	2
10% sodium hydroxide	5
50% sodium hydroxide	4
10% sulfuric acid	3
70% sulfuric acid	1
10% HCl (aq)	3
5% acetic acid	2

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:**

Recommend NC-WBE or NC-HBEP

**TOPCOAT:**

Optional – NC-MCU can be used for increased chemical resistance or increased UV stability.

**LIMITATIONS:**

\*Color stability or gloss may be affected by environmental conditions such as high humidity, low temperatures, chemical exposure or exposure to certain types of lighting such as sodium vapor lights.

\*Colors may vary from batch to batch. Therefore, use only product from the same batch for an entire job.

\*This product is not UV color stable and may discolor when exposed to UV lighting. Otherwise, the color stability of this product is good. Therefore, a topcoat is optional and dependent on the environment.

\*Light or bright colors may require a suitable primer or topcoat to achieve a satisfactory hide.

\*Substrate temperature must be 5°F above dew point.

\*All new concrete must be cured for at least 30 days prior to application.

\*Apply a suitable primer before using this product as a coating.

\*See reverse side for application instructions.

\*Physical properties are typical values and not specifications.

\*See reverse side for limitations of our liability and warranty.

# HIGH BUILD EPOXY TOP COAT

## COAT MIXING AND APPLICATION INSTRUCTIONS

**PRODUCT STORAGE:** Store product at normal room temperature. Continuous storage should be between 60 and 90 degree F. Low temperatures or temperature fluctuations may cause product crystallization.

**SURFACE PREPARATION:** The most suitable surface preparation would be a fine brush blast (shot blast) to remove all laitance and provide a suitable profile. All dirt, foreign contaminants, oil and laitance must be removed to assure a trouble free bond to the substrate. A test should be made to determine that the concrete is dry; 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 is dry enough to start coating. For applications directly over concrete, Testing should be performed to confirm a moisture vapor emission rate below 3 lb/24hr/1000 ft<sup>2</sup> per ASTM F1869

**PRODUCT MIXING:** This product has a mix ratio of 12# part A to 4.15# part B or two parts A to one part B by volume for standard colors. Standard packages are in pre-measured kits and should be mixed as supplied in the kit. We highly recommend that the kits not be broken down unless suitable weighing equipment is available. After the two parts are combined, mix well with slow speed mixing equipment such as a jiffy mixer until the material is thoroughly mixed and streak free. After mixing, transfer the mixed material to another pail (the transfer pail) and again remix. The material in the transfer pail is now ready to be applied on the primed substrate. Improper mixing may result in product failure.

**PRIMING:** A suitable primer should be used before applying this product. See the front side of this technical data for primer information. If a primer is not used, more porous substrates may cause outgassing and possible surface defects.

**PRODUCT APPLICATION:** The mixed material can be applied by brush or roller. However, the material can also be applied by a suitable serrated squeegee and then back rolled as long as the appropriate thickness

**PRODUCT APPLICATION (CONT'D):** recommendations are maintained. Maintain temperatures and relative humidity within the recommended ranges during the application and curing process. If concrete conditions or over aggressive mixing causes air entrapment, then an air release roller tool should be used prior to the coating tacking off to remove the air entrapped in the coating.

**RECOAT OR TOPCOATING:** If you opt to recoat or topcoat this product, you must first be sure that the coating has tacked off before recoating. However, all previous coats should be deglossed to insure a trouble free bond prior to application of recoats or topcoats. Colder temperatures will require more cure time for the product before recoating or topcoating can commence. Before recoating or topcoating, check for epoxy blushes (a whitish, greasy film or deglossing). If a blush is present, it can be removed by any standard detergent cleaner prior to topcoating or recoating. Many epoxy coatings and urethanes as well as multiple coats of this product are compatible for use as a topcoat.

**CLEANUP:** Use xylol

**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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