



Specialty Flooring Products

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TECHNICAL DATA: HIGH BUILD EPOXY LV

High Build Epoxy LV

NC-High Build Epoxy (NC-HBE-LV) is a two component 93% (+/- 1%) solids epoxy colored coating designed for applications where a high solids epoxy is needed before applying an additional coat or a 100% solids topcoats for build coats over concrete. This product can be used as a stand alone coating.

Recommended Uses

Use as a high build coating or basecoat on concrete surfaces.

General Product Data

SOLIDS BY WEIGHT:

93% (+/- 1%)

SOLIDS BY VOLUME:

93% (+/-2%)

VOLATILE ORGANIC CONTENT:

Part A= .14#/gallon, part B= 2.1#/gallon

Mixed= .79#/gallon (app. 0.85g/L)

RECOMMENDED FILM THICKNESS / COVERAGE PER GALLON:

6-12 mils / 133-267 sqft per gallon @ 6-12 mils

HARDNESS:

Shore D=80

PACKAGING INFORMATION

3 gallon kit (volume approximate) and 15 gallon kits (volume approximate)

SHELF LIFE:

1 year in unopened containers

STANDARD COLORS:

Off white, light gray, medium gray, tile red, beige

OTHER AVAILABLE COLORS:

Dark gray, charcoal gray, brown, tan, light blue, and green

Special colors are available upon request

TENSILE STRENGTH:

6,800 psi @ ASTM D638

FINISH CHARACTERISTICS:

Gloss (60 at 60 degrees @ Erichsen glossmeter)

IMPACT RESISTANCE:

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

ABRASION RESISTANCE:

Taber adrasor CS-17 calibrase wheel with 1000 gram total load and 500 cycles = 45 mg loss

FLEXURAL STRENGTH:

8,200 psi @ ASTM D790

ADHESION:

430 psi @ elcometer (concrete failure, no delamination)

VISCOSITY:

Mixed= 500-800 cps (typical, most colors)

YIELD COMPRESSIVE STRENGTH:

8,300 psi @ ASTM D695

ULTIMATE ELONGATION:

2.5%

DOT CLASSIFICATIONS:

Part A "not regulated"

Part B "CORROSIVE LIQUID N.O.S., 8, UN1760,PGIII"

MIX RATIO:

12 pounds (1 gallon) part A to 3.85 pounds (.50 gallons) part B (volumes approx.) (standard colors)

CURE SCHEDULE (70°):

Pot life – 1 1/2gallon volume 35-55 minutes

Tack free (dry to touch)..... 6-9 hours

Recoat or topcoat..... 10-14 hours

Light foot traffic.....12-16 hours

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

APPLICATION TEMPERATURE:

60-90 degrees F with relative humidity below 85% for best results

CHEMICAL RESISTANCE:

REAGENT	RATING
butanol	3
xylene	3
1,1,1 trichloroethane	2
MEK	1
methanol	1
ethyl alcohol	3
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:

None required unless substrate is very porous, then use NC -Water Based Epoxy to eliminate air release defects.

TOPCOAT:

Recommend multiple coats or high builds epoxy . And or HPU Urethanes for increased UV stability or NC High Build 100% solid epoxy topcoat.

LIMITATIONS:

- *Color stability or gloss may be affected by environmental conditions such as high humidity or chemical exposure
- *Colors may vary from batch to batch
- *This product is not UV color stable and will yellow in the presence of sunlight; topcoat required
- *Substrate temperature must be 5°F above dew point
- *For best results, apply using a squeegee or a 1/4" nap roller
- *All new concrete must be cured for at least 30 days prior to application
- *Although a thinner or lower solids primer is generally unnecessary, some more porous substrates may benefit by the use of a lower solid primer, with this product as an intermediate coat
- *Physical properties data based on neat resin
- *See reverse side for application instructions

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Mixing and Application Instructions

PRODUCT STORAGE: Store product in an area so as to bring the material to normal room temperature before using

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. The plastic sheet testing is also a good method to determine if any hydrostatic pressure problems exist that may later cause disbonding.

PRODUCT MIXING: This product has a mix ratio of 12# part A to 3.85# part B 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: This product is only intended as a high solids primer suitable for most substrates. However, if the surface is very porous, then a lower solids primer might be more suitable to reduce the possibility of air release problems occurring.

PRODUCT APPLICATION: The mixed material can be applied by brush, roller, or spray. However, the material can also be applied by a suitable

PRODUCT APPLICATION (CONT'D): serrated squeegee and then back rolled as long as the appropriate thickness 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: This product is not color stable and a topcoat should be used. Many topcoats are suitable for placement over this coating including both urethanes and epoxies. When topcoating this product, you must first be sure that the coating has tacked off before topcoating can commence. Before topcoating, check the coating to verify no epoxy blushes were developed (a whitish, greasy film or deglossing). If a blush is present, it must be removed prior to topcoating. A standard type detergent cleaner can be used to remove any blush. Many epoxy coatings and urethanes are compatible for use as a topcoat for this product as well as multiple coats of this product as an intermediate build coat.

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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