



# Specialty Flooring Products

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## TECHNICAL DATA: ELASTOMER MEMBRANE

### Elastomer Modified Membrane

NC-Elastomer Modified Membrane (NC-EMM) is a two component 100% solids epoxy designed for use underneath epoxy flooring systems for a seamless elastomeric membrane. The toughness and elongation eliminate the need to repair small static hairline cracks.

### Recommended Uses

Recommended for coating concrete or cementitious substrates as a crack bridging sealer before application of epoxy topcoat systems.

### General Product Data

**SOLIDS BY WEIGHT:**

100% (+/- 1%)

**SOLIDS BY VOLUME:**

100% (+/- 1%)

**VOLATILE ORGANIC CONTENT:**

Zero pounds per gallon

**COLORS AVAILABLE:**

Clear (gardner 1-3)

**RECOMMENDED THICKNESS:**

10-50 mils

**COVERAGE PER GALLON:**

32-160 square feet per gallon @ 10-50 mils

**PACKAGING INFORMATION**

3 gallon kit (volume appropriate)

15 gallon kits (volume appropriate)

**MIX RATIO:**

8.95 pounds (1 gallon) part A to 4.15 pounds (1/2 gallon) part B (volumes approx.)

**SHELF LIFE:**

1 year in unopened containers

**IMPACT RESISTANCE:**

Gardner Impact, direct = 160 in.lb. (passed)

**VISCOSITY:**

Part A = 133 krebs; Part B = 55 krebs (typical)

**TENSILE STRENGTH:**

2,400 psi

**ADHESION:**

420 psi @ elcometer (concrete failure, no delamination)

**ULTIMATE ELONGATION:**

100%

**HARDNESS:**

Shore D = 55

**DOT CLASSIFICATIONS:**

Part A "not regulated"

Part B "CORROSIVE LIQUID N.O.S., 8, UN1790, PGIII"

**ABRASION RESISTANCE:**

Taber abraser CS-17 calibrase wheel with 1000 gram total load and 1000 cycles = 18.4 mg loss

**CURE SCHEDULE (70°):**

|                                  |               |
|----------------------------------|---------------|
| Pot life – (150 gram mass) ..... | 23-33 minutes |
| Tack free (dry to touch).....    | 5-9 hours     |
| Recoat or topcoat.....           | 8-12 hours    |
| Light foot traffic.....          | 12-24 hours   |
| Full cure (heavy traffic).....   | 2-7 days      |

**APPLICATION TEMPERATURE:**

60-90 degrees F with relative humidity below 90%

**CHEMICAL RESISTANCE:**

| REAGENT              | RATING |
|----------------------|--------|
| xylene               | 2      |
| methanol             | 2      |
| skydrol              | 2      |
| 10% sodium hydroxide | 4      |
| 50% sodium hydroxide | 4      |
| 10% sulfuric acid    | 3      |
| 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, but porous surfaces may require a suitable primer

**TOPCOAT:**

Many suitable toppings can be used. Always apply a test area to confirm that the products are compatible before applying a topcoat system.

**LIMITATIONS:**

- \*Clarity of color or gloss may be affected by environmental conditions such as high humidity, low temperatures, or chemical exposure.
- \*Clarity of color may vary from batch to batch. Therefore, use only product from the same batch for an entire job when not intended solely as a primer for subsequent colored topcoat systems.
- \*This product is not suitable in all chemical environments. When chemical exposure is imminent, a test should be performed to test suitability.
- \*Always apply a test patch to check compatibility for both the concrete substrate and any subsequently planned topcoat systems to determine suitability before using.
- \*Substrate temperature must be 5°F above dew point.
- \*All new concrete must be cured for at least 30 days prior to application.
- \*Applications with relative humidity above 90% or early water contamination may cause white discolorations to develop.
- \*Improper mixing may result in product failure.
- \*See reverse side for application instructions.
- \*Physical properties are typical values and not specifications.
- \*See reverse side for limitations of our liability and warranty.

# Elastomer Modified Membrane 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. Low temperatures or temperature fluctuations may cause 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.

**PRODUCT MIXING:** This product has a mix ratio of 8.95# part A to 4.15# part B. 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.

**PRIMING:** Primers may be beneficial in some applications, dependent on performance characteristics and substrate condition, but none are required for product application.

**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 recommendations are maintained. Because this material has a short pot life, it is beneficial in some applications to remove the material from the mixing pail by pouring the material onto the substrate and spreading it along the floor.

**PRODUCT APPLICATION (CONT'D):** Spreading out the material will allow the applicator more time to work with the material before it begins to cure. If broadcasting aggregate into the product, the aggregate should be broadcast into the applied material before applying suitable topcoats. 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:** We recommend that a trial test area be applied with this product and the proposed topcoat system prior to the application to determine suitability. When you recoat or topcoat this product, you must first be sure that the coating has tacked off before recoating. To facilitate a greater bond between coats, the product can be deglossed to insure a trouble free bond prior to application of recoats or topcoat systems. It is advisable to test topcoats for suitability prior to application when not in a broadcast system. 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.

**CLEANUP:** Use xylol

**FLOOR CLEANING:** Caution! Some cleaners may affect the color of the floor installed. Test each cleaner in a small area. 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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