



# Specialty Flooring Products

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## TECHNICAL DATA: POLYASPARTIC URETHANE

### Polyaspartic Urethane Seamless Binder

NC-PUSB is a two component 100% solids polyaspartic aliphatic urethane seamless binder for broadcast systems. This material can be used with dried colored sand mixtures to provide an infinite array of color schemes or patterns. NC-PUSB has excellent chemical resistance, hardness, abrasion resistance, UV stability and has an excellent clear gardner color. However, the outstanding feature of this product is its exceptionally quick tack free time for foot traffic.

#### Recommended Uses

Recommended for areas where a high build broadcasted floor is desired and installation downtime is very limited. This material can also be applied over a broadcasted or troweled system as a thin to medium build sealer.

### General Product Data

**SOLIDS BY WEIGHT:**

100% (+/- 1%)

**SOLIDS BY VOLUME:**

100% (+/-1%)

**VOLATILE ORGANIC CONTENT:**

Zero pounds per gallon

**RECOMMENDED FILM THICKNESS:**

Is variable depending on aggregate used. A typical application would involve the application of the mixed liquids with a 1/16 inch (62.5 mil) notched squeegee, then broadcasted, followed by a second saturation coat of mixed liquids, then broadcasted and finally followed with a topcoat of the mixed liquids. This type of system will produce about a 125 mil (1/8") build. When used as a coating to seal a broadcasting or troweled system, apply only enough material to seal the substrate.

**COVERAGE PER GALLON:**

25 square feet per gallon per broadcasted coat when the liquid is applied at 62.5 mils and 160 sq. ft. per gallon as a seal coat at 10 mils.

**ABRASION RESISTANCE:**

Taber abraser CS-17 calibre wheel with 1000 gram total load and 500 cycles= 20 mg loss

**PACKAGING INFORMATION**

1.30 gallon kit (net approximately)

2.60 gallon kits (net approximately)

**AVAILABLE COLORS:**

Clear – gardner color 1-2

**FINISH CHARACTERISTICS:**

Gloss (>70 at 60 degrees @ Erichsen glossmeter)

**SHELF LIFE:**

6 months in unopened containers

**VISCOSITY:**

Mixed= 1,000-2,000 cps (typical)

**COMPRESSIVE STRENGTH:**

12,000 psi @ ASTM D695

**ULTIMATE ELONGATION:**

2.4%

**TENSILE STRENGTH:**

3,900 psi @ ASTM D638

**ADHESION:**

340 psi @ elcometer (concrete failure, no delamination, applied to shotblasted concrete)

**MIX RATIO:**

6.9 pounds part A to 4.7 pounds part B (approximately 1.30 gallon mixed per this kit size)

**DOT CLASSIFICATIONS:**

Part A "not regulated"

Part B "not regulated"

**HARDNESS:**

Shore D= 77

**CURE SCHEDULE (70°) (70% relative humidity):**

Pot life – 150 gram mass ..... 30-60 minutes  
(actual usable working time is approximately 15-25 minutes)

Tack free (dry to touch)..... 1-3 hours

Recoat or topcoat..... 2-4 hours

Light foot traffic.....2-5 hours

Full cure (heavy traffic).....24-48 hours

**APPLICATION TEMPERATURE:**

50-90 degrees F with relative humidity below 85%

**CHEMICAL RESISTANCE:**

REAGENT	RATING
xylene	3
1,1,1 trichloroethane	2
MEK	1
methanol	2
ethyl alcohol	2
skydrol	3
50% sodium hydroxide	5
10% sulfuric acid	3
10% HCl (aq)	3
5% acetic acid	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:**

Recommend a suitable epoxy broadcasted base system and/or adhesion testing prior to use.

**TOPCOAT:**

Optional: none required

**LIMITATIONS:**

- \*Color stability may be affected by environmental conditions like high humidity/chemical exposure. Exposure to some types of lighting such as sodium vapor lights may cause discolorations.
- \*Clarity of color may vary from batch to batch.
- \*Substrate temperature must be 5°F above dew point.
- \*Too thick of an application may result in surface imperfections or bubble generation.
- \*Always apply a test patch to determine product suitability and adhesion performance for your proposed application method and procedures.
- \*All new concrete must be cured for at least 30 days prior to application.
- \*Do not expose this product to water until fully cured.
- \*See reverse side for application instructions.
- \*Physical properties are typical values and not specifications.
- \*See reverse side for limitations of our liability and warranty.
- \*Relative humidity can affect dry time and gel time – See page 2

# Polyaspartic Urethane Seamless Binder

## Mixing and Application Instructions

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

**SURFACE PREPARATION:** The most suitable surface preparation would be a 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 6.90# part A to 4.7# part B. Standard packages are in pre-measured kits and should be mixed as supplied in the kit. 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.

**PRIMING:** A suitable primer should be used before applying this product. See the front side of this technical data for primer information. However, whether a primer is used or not, it is advisable to apply a test patch prior to using this product to determine if the adhesion characteristics are suitable for the service environment.

**PRODUCT APPLICATION:** The mixed material can be applied by brush, serrated squeegee, or roller. Maintain temperatures and relative humidity within the recommended ranges during the application and curing process. This product is only intended for use in or over an aggregate broadcasted system or a troweled decorative quartz system. The product can be used as a topcoat to seal in the broadcasted sand base or quartz troweled base for the final coat. Improper mixing may result in product failure. It should be pointed out that relative humidity can have a dramatic influence on the curing characteristics. The product will dry quicker and have less working time when the relative humidity is higher while a lower relative humidity will lengthen the dry time and working time. Mix only an amount that can be applied in the time allotted. Be sure that any tie-ins to previously applied material is also within the recommended time allotted for use as the previously applied material may begin to tack off in a short period of time.

**RECOAT OR TOPCOATING:** This material can be applied in multiple broadcast layers to increase build or can also be used as the final topcoat to seal in the aggregate filled base system. If you opt to recoat or topcoat this product, you must first be sure that the coating has tacked off before recoating. Always remember that colder temperatures will require more cure time for the product before recoating or topcoating can commence.

**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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