

ALIPHATIC SAFE-320NP
SEMI-GLOSS HIGH PERFORMANCE URETHANE
TECHNICAL DATA

MIXING AND APPLICATION

INSTRUCTIONS (NP320)

Application Instructions CONTACT YOUR TECH SUPPORT PERSON FOR DETAILS, FILLER COMBINATIONS & MIXING WITH OTHER MATERIALS. THESE ISSUES CAN CHANGE CHARACTERISTICS DRAMATICALLY.

PRODUCT STORAGE: Store product in an area as to bring the material to normal room temperature before using. Continuous storage should be between 40 and 90 degrees F.

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 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 can be prevented by varying ratios or using different part B or BR FORMULA.

PRODUCT MIXING: Use of Spray-Lining loaner equipment aids in large job mixing. This product has a two to one mix ratio by volume- merely mix two gallons of part A with 1 gallon of part B. After the two parts are combined, mix well with slow speed mixing equipment or Spray-Lining vacuum auto mixer. Avoid whipping air into the coating with off the shelf mixing tools.

PRODUCT APPLICATION: The mixed material can be applied by any means or Spray-Lining exacting tools.

RECOAT OR TOPCOATING: Multiple coats of this product or one thick layer are acceptable. If you opt to recoat this product, you must first be sure that all moisture had -evaporated from the coating during the curing process. 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 can be started. Before recoating or topcoating, check the coating to insure no contaminants exist. If a blush or contaminants are present on a previous coat, remove with a standard cleaner. When recoating this product with subsequent coats of the urethane, it is advisable to apply the recoat before 24 hours passes.

CLEANUP: Use ketone solvents

FLOOR CLEANING: Caution! 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.

PRODUCT DESCRIPTION:

SAFE-320NP is a two component (*semi-gloss*) aliphatic polyurethane floor sealer that exhibits excellent characteristics for abrasion resistance, chemical resistance, flexibility, weathering, and UV stability.

RECOMMENDED FOR:

Recommended for auto service centers, warehouses, computer rooms, laboratories, aircraft, high-friction environments, hangers, cafeterias, exterior tanks, indoor or outdoor service and chemical exposure areas.

SOLIDS BY WEIGHT:

Mixed= 65% (colors); 58% (clear) (+/- 2%)

SOLIDS BY VOLUME:

Mixed= 56% (colors); 54% (clear) (+/- 2%)

VOLATILE ORGANIC CONTENT:

Part A= 4.3#/gallon (colors); 4.5#/gallon (clear)

Part B= 2.20#/gallon

STANDARD COLORS:

White, off white, light gray, medium gray, beige, and clear

RECOMMENDED FILM THICKNESS:

3-5 mils per coat wet thickness

COVERAGE PER GALLON:

320 to 500 square feet @ 5-6 mils wet thickness

PACKAGING INFORMATION:

3 gallon and 15 gallon kits 3 gal kit= 2 gallons part A (10.9#/gal-colors) or (8.85#/gal-clear) and 1 gallon part B (8.5#/gal) (weights & volumes approximate) 10 to 50 gallon packs; tank loads

MIX RATIO:

2 parts A to 1 part B by volume

SHELF LIFE:

1 year in unopened containers

FINISH CHARACTERISTICS:

Semi-gloss (<70 at 60 degrees @ Erichsen glossmeter)

IMPACT RESISTANCE:

Gardner Impact, direct & reverse=160 in lb (passed)

ABRASION RESISTANCE:

Taber abrasor CS-17 calibrase wheel with 1000 gram total load and 500 cycles= 21.0 mg loss

ADHESION:

360 psi @ elcometer (concrete failure, no delamination)

VISCOSITY:

Mixed= 450-650 cps (typical, most colors)

DOT CLASSIFICATIONS:

Part A "FLAMMABLE LIQUID N.O.S., 3, UN1993, PGIII"

Part B "FLAMMABLE LIQUID N.O.S., 3, UN1993, PGIII"

HARDNESS:

Shore D= 72

FLEXIBILITY:

No cracks on a 1/8" mandrel

CURE SCHEDULE: (70°F)

| | |
|---------------------------------------|-----------|
| pot life – (1 1/2 gallon volume)..... | 3-5 hours |
| tack free (dry to touch)..... | 10 min |
| recoat or topcoat..... | 10 min |
| light foot traffic..... | 3-4 hours |
| full cure (heavy traffic)..... | 2-3 days |

APPLICATION TEMPERATURE:

45-90 degrees F with relative humidity below 90%.

CHEMICAL RESISTANCE:

| REAGENT | RATING |
|-----------------------|--------|
| acetic acid 5% | C |
| xylene | D |
| mek | B |
| methyl alcohol | B |
| gasoline | D |
| 10% sodium hydroxide | E |
| 50% sodium hydroxide | D |
| 10% sulfuric | D |
| 10% hydrochloric acid | D |
| 20% nitric acid | C |
| ethylene glycol | D |

Rating key: A - not recommended, B - 2 hour term splash spill, C - 8 hour term splash spill, D - 72 hour immersion, E - long term immersion. NOTE: extensive chemical resistance information is available through your sales representative.

PRIMER:

Recommend NP015 or NP144/154.

TOPCOAT:

None recommended

LIMITATIONS:

- *Colors or gloss may be affected by high humidity, low temperatures, or chemical exposure.
- *For best results use a high quality 3/8" nap roller.
- *Slab on grade requires moisture barrier.
- *Substrate temperature must be 5°F above dew point.
- *All new concrete must be cured for at least 30 days.

*Physical properties are typical values and not specifications.

*Light or bright colors (white, safety yellow, etc) may require multiple coats or a suitable color coordinated primer to achieve a satisfactory hide.

*Tire contact may cause staining and discoloration.

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

*Lights like sodium vapor lights can cause discoloring.

*See reverse side for application instructions.

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