

# POLYURETHANE 144NF

## DESCRIPTION

Polyurethane 144NF is a high-solids, two-component, water-based aliphatic polyurethane. This unique product provides performance properties equal to conventional solvent-based catalyzed urethanes without the associated health and environmental problems.

Polyurethane 144NF is VOC compliant in California. It offers substantial performance improvements over first generation catalyzed water-based polyurethanes, including higher film build capabilities, improved chemical resistance, and resistance to hot tire staining. Polyurethane 144NF gives hard, durable coatings that feature good gloss, easy cleanability, and superior abrasion resistance. Resistance to yellowing from UV light is excellent. For exterior desert applications, a special UV absorber package is available to ensure long-term chalk resistance and gloss retention.

Developed as a high-performance finish coat for seamless flooring and architectural applications, Polyurethane 144NF is ideal where odor cannot be tolerated. Polyurethane 144NF is the ideal top coat for areas that require maximum gloss retention, ease of cleaning, and resistance to heavy foot traffic. Typical areas of application would include clean rooms, hospitals, concrete counter tops, and high traffic retail areas. Polyurethane 144NF is also suitable for aircraft hangars, automotive repair facilities, and garage floors. It is available in gloss, matte & satin finishes.

## ADVANTAGES

- Resistant to fuels and many chemicals
- Hard, high-gloss, easily cleaned surface
- Graffiti resistant when used as wall surface

## COLORS

Factory Supplied 3 Standard Colors & Clear

- White, Delta Fog, and Sterling

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## PACKAGING

Supplied in complete A+B 1.5 gallon (5.7 L) or 15 gallon (56.8 L) total volume mixed units.  
Mix ratio 2A : 1B

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## SURFACE PREPARATION

Concrete must be cured for at least 30 days and be clean, structurally sound, and free of wax, loose paint or curing compounds. Concrete should be shot blasted to achieve a surface minimum texture of ICRI 3. Refer to ICRI Technical Guidelines 310-330 Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings, Polymer Overlays, and Concrete Repair. Acid etching is not recommended and will void Manufacturer's warranty. Vacuum prepared concrete surface to remove all dust. Previously coated surfaces that are soundly adhered must be mechanically cleaned and abraded to achieve uniformly gloss-free, open texture.

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## TECHNICAL DATA

Mixing Ratio by Volume	2A : 1B
VOC	94 g/l
Solids Content, by Volume, Clear	58.5%
Gloss (60 degrees) ASTM D523 - 14	90
Hardness ASTM D4366 (Konig)	175
Tabor Abrasion (1000 gm. load 1000 cycles, CS 17 wheel)	39 mg Loss
Re-coat Final Flooring Application	~5 - 6 Hours
Dry Times (77°F)	
Dry To Touch	~6 Hours
Recoat	~12 Hours
Light Traffic	~18Hours
Full Traffic	~7 Days

Higher temperatures and lower relative humidity will shorten cure time. Lower temperatures and higher relative humidity will increase cure time.

## **MIXING**

Mix only that amount of material that can be used in a 3 hour period at 77°F. Higher temperatures reduce work time. In hot weather, it is advisable to mix smaller batches. Premix Part A before adding part B. Mixing ratio is 2 parts A to 1 part B. Add part B slowly while mechanically agitating part A with a slow speed drill. Mix for 2 full minutes until completely homogenized. Material cannot be properly mixed by hand. Use a small “squirrel cage” mixer for mixing small amounts.

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## **APPLICATION**

Polyurethane 144NF should be applied 200-350 sq. ft. per gallon by brush, roller or airless sprayer. Do not allow to puddle or accumulate in joint areas. Applications heavier than 200 sq. ft. per gallon will create bubbles in the cured coating.

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## **SHELF LIFE**

One [1] year from date of manufacture in original unopened container. Store away from heat sources between 50°F and 85°F (10°C – 30°C). Do not allow to freeze.

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## **LIMITATIONS**

- Material must be mixed mechanically for proper performance.
  - Application rate must be kept above 200 sq. ft. per gallon to avoid curing bubbles that occur in thicker applications.
  - Applications over textured surfaces such as trowel-knockdown polymer concrete must be done with a 3/4” nap roller and pulled tightly to avoid leaving excessive product in recessed areas.
  - Work life is considerably shortened over 90 degrees F.
  - Do not apply material if the humidity is over 80% and/or poor ventilation. Improper cure will result.
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## **HANDLING & SAFETY**

Use only with adequate ventilation and appropriate cartridge-type respirator as application conditions require. Avoid contact with skin; wear protective gloves. Application personal must read and fully understand product Safety Data Sheet before using. APF Safety Data Sheets are available at [www.tri-chem.com](http://www.tri-chem.com)