

1. Product Name

NPS Concrete Sealer

2. Manufacturer

Formulated Materials, LLC
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3. Product Description

NPS is a self-crosslinking, nano-based aqueous copolymer sealer that delivers exceptional substrate penetration, very high abrasion resistance, and finish versatility across a broad range of interior and exterior applications. A single-component, water-based formula, NPS functions as a penetrating primer, a finish coat sealer, and a color carrier depending on substrate and application method.

When fully cured, NPS meets FDA 21 CFR 175.300 performance characteristics for indirect food contact surfaces, making it suitable for food service facilities, commercial kitchens, and food processing environments where most sealers cannot be used.

Key Features

- Exceptional abrasion resistance 60 mg loss per ASTM D4060. Suitable for high-traffic commercial and industrial floors.
- FDA 21 CFR 175.300 compliant when fully cured. Suitable for foodservice and food-processing environments.
- Single-component, water-based formula. No mixing, no pot life concerns. Cover when not in use.
- UV stable for both interior and exterior use. Will not yellow or degrade under prolonged sun exposure.
- Adheres to alkaline surfaces and poorly neutralized acid-stained concrete.
- Rapid cure: set to touch in 2 hours, recoat window opens in 2 hours with no maximum recoat window.
- Rapid water resistance. Low odor. Excellent blush resistance.
- VOC compliant at 95 g/L.
- Functions as both a color carrier and colorable sealer. Available in Gloss and Extra-Low Gloss finishes.
- Water cleanup. No solvents required for tool cleaning.



Where to Use

NPS is suitable for sealing and protecting the following substrates in both interior and exterior applications:

- Open and polished concrete
- Stamped concrete and micro-toppings
- Self-leveling concrete
- Concrete block, brick, and pavers
- Stucco
- Dimensional stone (many types)
- Acid-stained concrete, including poorly neutralized substrates, NPS adheres in acidic conditions where many competing sealers fail.

Product Composition

NPS is a single component self-crosslinking, nano-based aqueous copolymer sealer.

Product Limitations

- Substrate must be uncoated and free of oils, fats, release agents, curing compounds, and other contaminants prior to application. Verify water penetration before applying (see Section 5).
- Do not apply below 60°F or above 85°F ambient or substrate temperature.
- Do not apply in high humidity or poor ventilation conditions.
- Not intended for use on coated or previously sealed surfaces without complete removal of the existing coating.
- Limitations not to be construed as all inclusive.

Packaging

5 Gal pails

4. Technical Data

Physical and Performance Properties

Property	Result	Test Method
% Solids	25–35% typical	ASTM D3960
Weight per Gallon	8.87 lbs	ASTM D1475
VOC	95 g/L	ASTM D3960
Set to Touch	2 hours	—
Recoat Time (minimum)	2–24 hours	ASTM D1650
Print Free Time	10+ hours	ASTM D1650
Gloss (60° Specular)	48	ASTM D523
Pencil Hardness	5H	ASTM D3363
Impact Resistance (Direct & Indirect)	>160 in/lb	ASTM G14-48
Abrasion Resistance	60 mg loss	ASTM D4060
Food Contact Compliance	Meets FDA 21 CFR 175.300 (when fully cured)	—

Chemical Resistance — 12-Hour Covered Spot Test

Reagent	Result	Test Method
10% Hydrochloric Acid	No effect	ASTM D1308-87
10% Nitric Acid	No effect	ASTM D1308-87
10% Sulfuric Acid	No effect	ASTM D1308-87
10% Ammonia	No effect	ASTM D1308-87
Saturated Sugar Solution	No effect	ASTM D1308-87
Saturated Salt Solution	No effect	ASTM D1308-87
Methanol	No effect	ASTM D1308-87
Skydrol	Slight softening / recovers	ASTM D1308-87
Mineral Spirits	No effect	ASTM D1308-87
Gasoline	No effect	ASTM D1308-87
Xylene	No effect	ASTM D1308-87
Motor Oil	No effect	ASTM D1308-87
Clorox (Bleach)	No effect	ASTM D1308-87
TSP (Trisodium Phosphate)	No effect	ASTM D1308-87
Brake Fluid	Very slight softening / recovers	ASTM D1308-87

Estimated Coverage by Substrate

Substrate Condition	Approximate Coverage per Coat
Smooth / standard concrete (1st coat)	~500 sq ft/gallon
Smooth / standard concrete (2nd coat)	~850 sq ft/gallon
Aggressive broom finish / rough texture	~250 sq ft/gallon
General range (all substrates)	250–1,000 sq ft/gallon per coat

Note: Rougher substrates have greater surface area and absorb more material per square foot. Always conduct a test area to establish actual coverage for the specific substrate and condition.

5. Instructions

Tools Required

- Drill with mixing paddle
- Pressurized (Hudson) style sprayer
- Medium bristled broom

Jobsite Conditions

- Apply at ambient and substrate temperatures between 60°F and 85°F.
- Low humidity and adequate air circulation are required. Do not apply in enclosed spaces without ventilation.
- Do not apply in direct sunlight on hot substrates — product may dry too rapidly, compromising penetration.

Surface Prep

- Substrate must be clean and free of oils, fats, grease, waxes, curing compounds, concrete release agents, and any existing coatings or sealers.
- Remove all contaminants by appropriate mechanical or chemical means prior to application. Residual contaminants will prevent proper adhesion and penetration.
- Perform a water penetration test before applying: pour a small amount of water on the substrate. If water penetrates the slab within 30 seconds, the surface is acceptably prepared. If water beads or pools without absorbing, additional surface preparation is required.
- For acid-stained substrates: ensure acid residue is as neutralized as possible. NPS is formulated to adhere in acidic conditions, but excessive residue should still be removed.
- Surface must be dry prior to application.

Mixing

Single-component formula. No mixing required. Stir gently before use. Keep container covered when not in use — do not leave open between applications.

Application

- Apply using a pump sprayer and immediately spread with a microfiber pad, roller, or squeegee to ensure even distribution and penetration.
- First coat: dilute 10–30% with water for penetrating primer application. This is recommended on most substrates to maximize penetration depth.
- Second coat: apply full-strength as a finish coat. Two coats are recommended for best performance and finish.
- Allow a minimum of 2 hours between coats. There is no maximum recoat window — additional coats may be applied at any time without adhesion concerns.
- For maximum gloss and top performance: after full cure (72 hours minimum), burnish with 400-grit diamond-embedded pads on a low-speed machine.
- Clean tools and equipment with water immediately after use. Do not allow product to dry on equipment

Storage & Protection

- Store in an interior warehouse environment at temperatures between 36°F and 98°F.
- Protect from freezing. Protect from direct sunlight and extreme heat.
- Shelf life from date of manufacture: 9 months (Extra-Low Gloss / Flat finish), 12 months (Gloss finish).
- Keep container tightly sealed when not in use.

Health Precautions

- Water-based formula with low odor. Use in well-ventilated areas.
- Avoid contact with eyes and prolonged skin contact. Wear appropriate PPE including safety glasses and gloves.
- Always review the complete Safety Data Sheet (SDS) before use.

Conformance to Building Codes

Installation must comply with all applicable local, state, and federal codes, regulations, and industry standards. Product is VOC compliant at 95 g/L.

6. Availability

Item	Description	Size	Per Pallet	Shelf Life
10372	NPS Concrete Sealer — Gloss	5 gal	36 pails	12 months
10373	NPS Concrete Sealer — Extra-Low Gloss	5 gal	36 pails	9 months

7. Product Warranty

For details and complete warranty information, visit www.formulatedmaterials.com.

8. Product Maintenance

Sealed surfaces may be cleaned with mild soap and water. Avoid harsh chemical cleaners or abrasive scrubbing pads that may degrade the sealer film over time. For high-traffic commercial or food service applications, periodically inspect the sealed surface for wear and recoat as needed. Recoating requires no special preparation clean the surface and apply per standard instructions. There is no maximum recoat window.

9. Technical Services Information

For Technical Services, contact Formulated Materials at (844) 405-3676.

10. Filing System

Additional product information is available from Formulated Materials upon request.

