

# NUHUE SEALER

NANO-TECHNOLOGY DRIVEN, SUPERCHARGED 100% CLEAR, BREATHABLE, PENETRATING SEALER

## DESCRIPTION

A new supercharged nano-technology driven, breathable, deep penetrating, clear, 100% active, water, and chloride repellent that provides exceptional penetrating power and water repellency. NuHue Sealer is a deep penetrating water repellent that protects against water-soluble deleterious materials, and freeze/thaw cycles. With its long established hydrophobic agents, and through the latest advances in nano-technology, its intelligent nano particles provide even deeper penetration adding an extra layer of protection. Once applied, the change of the surface tension creates a surface environment that is hydrophobic, forming an effective shield that aides in a dramatic reduction of chloride and water absorption. The proprietary nano-technology offers deeper penetration when compared to traditional silane isomers resulting in an even longer service life that protects the concrete, forming an invisible barrier that leaves the concrete's appearance completely natural.

**ACTIVES:** 100% wt%

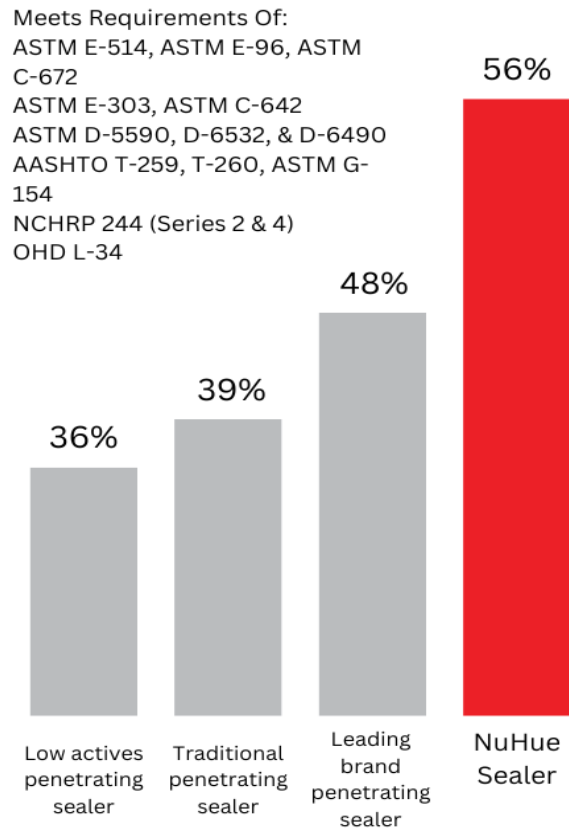
**APPEARANCE/COLOR:** Clear & colorless

**COVERAGE:** 200-600 ft<sup>2</sup>/gallon

## TECHNOLOGY & ADVANTAGES:

- **Composition:** 100% actives isooctyltriethoxysilane isomers
- **Exceptional waterproofing:** penetrates deep within the concrete chemically reacting within the pores and capillaries creating a long-lasting hydrophobic surface that beads water
- **Dramatic reduction in chloride and water absorption**
- **100% breathable:** Non-film forming. Allows moisture within the concrete to escape without adverse effects to the sealer. Does not trap moisture.
- **Abrasion resistance:** reduces concrete dusting. Provides ease of maintenance, resists ASR/alkali attack.
- **Protects against chlorine ion penetration:** forms an effective chloride screen dramatically reducing chloride ion ingress preventing deicing salt/chloride damage
- **Resist oxidization:** inhibits rust and corrosion of rebar in reinforced concrete
- **Stops moisture intrusion:** stops wind-driven rain, prevents freeze-thaw damage, spalling, pitting, & cracking.
- **Resists organic growth:** mold, mildew, & lichen.
- **Department of Transportation:** meets or exceeds DOT specifications
- **Provides excellent adhesion for paints**
- **Improves durability:** prevents capillary uptake of water and the aggressive substances dissolved in it
- **Natural flat finish:** does not change surface appearance, UV stable, and will not break down under light exposure
- **Can be applied to cured, honed, and polished concrete:** ideal for horizontal surfaces exposed to pedestrian and vehicle traffic, compatible with silicate densifiers
- **100% neat:** excellent for cold weather applications, low volatility, and high resistance to alkalis
- **Seals cracks:** up to 0.3mm
- **Unrivaled industry leading 100 year warranty:** guaranteed to never delaminate, flake, discolor, chip, degrade from UV light exposure, or diffuse

## Depth of Penetration Water Repellency and Weathering



Percentage (%) Improvement vs.  
Control Sealer

### TYPICAL PROPERTIES:

**APPEARANCE/COLOR:** Clear & colorless

**PACKAGING:** 1 gallon (3.78 L), 5 gallon (18.9 L) pails and 55 gallon (208 L) drums

**VOC's:** less than 80g/L maximum

**FLASH POINT:** 107 degrees F, 42 degrees C

**SPECIFIC GRAVITY:** 0.76

**DENSITY:** 8.8 lbs/gal

**TESTING DATA:**

TEST METHOD	TYPE	RESULTS
<b>ASTM E 303</b> Standard test method for measuring surface friction (BPT).	<b>Skid Resistance</b> Troweled Concrete Untreated Treated	90 90
<b>ASTM D 6532</b> Standard test method for evaluation of clear water repellents on water absorption in concrete.	<b>Water Absorption, %</b> Concrete Brick	0.96 0.05
<b>ASTM D 6490</b> Standard test method for water vapor transmission or non film-forming agents.	<b>Water Vapor Transmission</b> WVT (grains/h/ft <sup>2</sup> ) Permeance (perms)	2.0 4.8
<b>ASTM E 514</b> Standard test method for water penetration and leakage through masonry.	<b>Water Penetration of Masonry,</b> % Reduction Dampness Leakage	100 100
<b>ASTM D 6532</b> Standard test method for evaluation of clear water repellents on water absorption in concrete.	<b>Water Absorption, %</b> Concrete Brick	90 99
<b>ASTM C642</b> Standard test method for density, absorption, and voids in hardened concrete.	<b>Water Absorption, %</b> 48 Hours 50 Days	0.26 0.70
<b>ASTM C672</b> Standard Test Method for Scaling Resistance of Concrete Surfaces Exposed to Deicing Chemicals	<b>Scaling resistance rating,</b> non-air-entrained concrete 100 cycles	0 - No scaling

TEST METHOD	TYPE	RESULTS
<b>Alberta DOT penetrating sealer, Type 1c</b> (0.35 w/c ratio)	<b>Water Repellency after Heavy Abrasion, %</b>	83.5 (exceeds criteria)
<b>NCHRP</b> Series II-Cube test	<b>Water Weight Gain, % Reduction</b> 250 ft <sup>2</sup> /gal 400 ft <sup>2</sup> /gal	90 85
<b>NCHRP</b> Series II-Cube test	<b>Absorbed Chloride, % Reduction</b> 250 ft <sup>2</sup> /gal 400 ft <sup>2</sup> /gal	96 87
<b>NCHRP</b> Series IV - Southern climate	<b>Absorbed Chloride, % Reduction</b>	98 (exceeds criteria)

Test results are averages obtained in a controlled environment., material and curing conditions of 75 degrees F and 50% relative humidity. Reasonable variations should be expected.

#### APPLICATIONS:

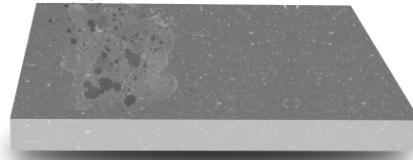
- Interior & exterior concrete
- Horizontal & vertical substrates
- Reinforced concrete structures
- Traffic-bearing concrete substrates
- Bridge decks and substructures
- Concrete ramps and barriers
- Parking garages
- Stadiums and buildings
- Concrete driveways, loading docks, public sidewalks, garages, and roof tiles
- Plazas

#### SUBSTRATES:

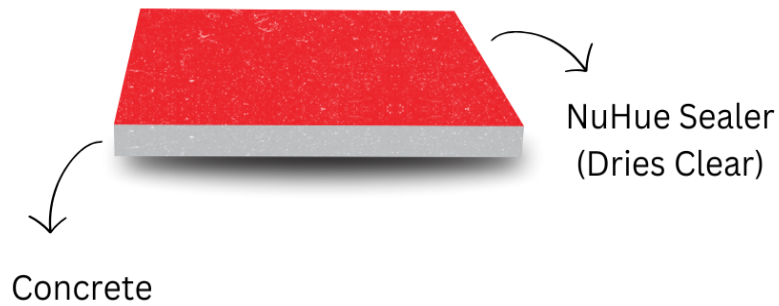
- Concrete
- Brick & Masonry
- Stucco
- CMU
- Exposed aggregate
- Pavers

**DEMONSTRATION:**

Untreated Concrete, Showing Chloride Intrusion



Water-Soluble Deleterious Materials & Chlorides repelled by NuHue Sealer



NuHue Sealer dries completely clear, protecting the concrete from surface damage

## **SURFACE PREP STEPS:**

1. New “green” concrete must be properly cured. Concrete should obtain 80% of design strength, typically achieved within 14-28 days.
2. The concrete substrate must be structurally sound and clean of oil, grease, dirt, wax, curing compounds, efflorescence, paints, previous sealers, adhesives, and other contaminants that might interfere with the penetration of the sealer. Power wash, acid etch, or mechanically scarify as necessary to achieve the desired surface condition. Allow for proper dry time before application. May be applied to slightly damp surfaces, although maximum penetration is achieved on dry substrates. Do not apply if standing water is visible.
3. NuHue Sealer is frost-sensitive, surface and air temperatures must be above 32 degrees F during application. Surface and air temperatures should not exceed 110 degrees F. Do not apply when temperatures are expected to fall below 32 degrees F within 8 hours or when rain is expected within 12 hours following application. Keep material from freezing. If freezing conditions exist before application, let the substrate thaw before application. Do not apply during inclement weather or when inclement weather is expected within 12 hours.
4. Crack, patching, and expansion joint sealants can be applied before application; always test for compatibility and adhesion.
5. Protect people, property, vehicles, window glass, roofing materials, plastic products, shrubbery, landscaping, and all surfaces not set for treatment from overspray.

## **APPLICATION STEPS:**

1. Always test a small area before application to ensure desired performance, aesthetics, coverage rates, and to verify application technique. Let test area dry thoroughly, 5-7 days, before inspection.
2. Stir material thoroughly before and during application. Do not dilute or alter material for purposes other than specified.
3. Apply to saturation to ensure complete coverage. Use enough material to keep the surface wet for about a minute before it penetrates. Verify coverage with a NuHue product representative prior to application. Apply with a roller, brush, or low-pressure, non-atomizing sprayer. If applying two coats, let the first coat penetrate for 5-10 minutes then reapply a second coat in the same saturating manner. Roll or broom out any puddles until the product penetrates the substrate. If it starts to rain, stop treatment and cover the impregnated areas.

## **DRY TIME:**

Typical drying time is 4-6 hours at 70 degrees F and 50% relative humidity. Cooler temperatures or higher relative humidity can extend the drying time. Treated surfaces will be ready for pedestrian and vehicle traffic within 24 hours.

## CLEAN UP:

Clean equipment and tools with mineral spirits or denatured alcohol. Unused or old material may be disposed of in a waste disposal site in accordance with local, state, and federal law.

## PRECAUTIONS & SAFETY:

Avoid contact with skin, eyes, and clothing, do not take internally. Use appropriate safety equipment during application and handling. Please refer to the safety data sheet (SDS) for additional precautionary instructions before use. For medical emergencies, call ChemTec (1-800-424-9300).

## BEST PERFORMANCE (APPLICATION NOTES):

- Proper application is the responsibility of the user.
- Will not inhibit water penetration through unsound or cracked surfaces with defective flashing, caulking, or structural waterproofing.
- Spills should not be allowed to sit for an extended period of time; clean all spills in a timely manner.
- Make sure the most current versions of product technical data sheets and safety data sheets are being used.

## COVERAGE:

200 - 600 square feet per gallon. Variations in texture and porosity of substrate will affect the coverage and performance of the product.

## WARRANTY:

NuHue warrants this product to be free from manufacturing defects and to meet the technical properties on the current Technical Data Sheet if used as directed within shelf life. Satisfactory results depend not only on quality products but also upon many factors beyond our control. NuHue makes no other warranties of merchantability or fitness for a particular purpose with respect to its products. The sole and exclusive remedy of Purchaser for any claim concerning this product, including but not limited to, claims alleging breach of warranty, negligence, strict liability or otherwise, is the replacement of product or refund of the purchase price at the sole option of NuHue. Any claims concerning this product must be received in writing within one (1) year from the date of shipment, and any claims not presented within that period are waived by Purchaser. NuHue will not be responsible for any special, incidental, consequential (including lost profits), or punitive damages of any kind.

Purchaser must determine the suitability of the products for the intended use and assumes all risks and liabilities in connection therewith. The information and all further technical advice are based on NuHue's present knowledge and experience. However, NuHue assumes no liability for providing such information and advice including the extent to which such information and advice may relate to existing third party intellectual property rights, especially patent rights, nor shall any legal relationship be created by or arise from the provision of such information and advice. NuHue reserves the right to make any changes according to technological progress or further developments. The Purchaser of the product(s) must test the product(s) for suitability for the intended application and purpose before proceeding with a full application of the product(s). Performance of the product described herein should be verified by testing and carried out by qualified experts.



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