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## DESCRIPTION:

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Nukote HLT-SR is a unique surface treatment for concrete consisting of specialized reactive chemicals, lithium-colloidal silica matrix, and a super duty siliconate water repellent. HLT-SR can be used as a concrete surface treatment to reduce micro porosity in cementitious materials or as a complementary pre-primer treatment for Nukote's unique advanced polymer coatings.

When applied to concrete or any pozzolanic material, Nukote HLT-SR penetrates to seal, densify and thereby harden cementitious surfaces. Nukote HLT-SR is formulated to penetrate and block capillaries, voids, and fine shrinkage cracks by reacting with free calcium hydrates to form an insoluble, permanent barrier. It improves water resistance, water repellency, and surface properties of cementitious materials - including concrete. Nukote HLT-SR also reduces the risk of coating failures associated with moisture migration and outgassing. Concrete surfaces treated with Nukote HLT-SR last longer, cost less to maintain, and resist wear, abrasion and dusting.

Nukote HLT-SR is recommended for use as a pre-priming surface treatment on floorings, liners in immersion application, and adhered waterproofing membranes - including structures under hydrostatic pressure. Nukote HLT-SR may be used as a standalone surface treatment in certain applications.

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## FEATURES:

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- Environmentally friendly with zero VOC
- Reduces the porosity and increases durability of the concrete surface
- Densifies and hardens new and old concrete
- Improves chemical resistance and reduces water absorption
- Improves resistance to staining and dusting
- Improves concrete quality, durability, liquid repellency
- Effective chloride and electrolyte barrier
- Re-alkalizes carbonated concrete
- Reduces risk of moisture out-gassing, pin-holing, and blisters in polyurea, polyurethane elastomers, or other top coats

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## TYPICAL USES:

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- As a densifier on floors subject to medium or heavy traffic
- As a water resistant surface treatment for concrete and masonry
- As a sealer for micro leaks in walls and basements
- As a moisture barrier to protect different types of flooring and floor coverings
- As a concrete densifier and hardener
- As part of liquid and gas barrier used in containment applications with concrete structures
- As part of a rehabilitation plan for deteriorated and contaminated concrete
- Waterproofing wet, damp or below grade concrete (Contact Nukote for specific application instructions for this application)

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## COLORS:

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Cloudy liquid dries to clear

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**PACKAGING:**

50-gallon (190-liter) drums  
5-gallon (19-liter) plastic pails  
275-gallon (1045 liter) totes.

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**COVERAGE:**

Nukote HLT-SR may be applied at any rate dependent on ambient temperature, surface porosity, and absorption rate of liquids into the concrete.

Recommended application rate on typical concrete is 150 ft<sup>2</sup>/gal to 200 ft<sup>2</sup>/gal (4 m<sup>2</sup>/l to 5 m<sup>2</sup>/l) for broom finish or 200 ft<sup>2</sup>/gal to 250 ft<sup>2</sup>/gal (5 m<sup>2</sup>/l to 6 m<sup>2</sup>/l) for burnished finish.

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**STORAGE:**

Twelve months in factory delivered, unopened drums. Store on pallets and keep away from extreme heat, freezing, and moisture.

<b>TECHNICAL DATA (All values @ 77 °F / 25 °C)</b>	<b>US</b>	<b>Metric</b>
Solids by volume (ASTM D2697)	10%	10%
Volatile organic compounds (ASTM D2369)	0 lb./gal	0 gm/ lit
Theoretical coverage	150-200 ft <sup>2</sup> /gal	4-5 m <sup>2</sup> / lit
Specific Gravity of material (ASTM D792)	8.76 lbs./gal	1.05 kg/ liter
Shelf life @ 77 °F /25 °C	12 Months	12 Months
<b>PROCESSING PROPERTIES (Under standard lab conditions)</b>		
Mix Ratio V/V	N/A	
Gel time	N/A	
Tack free time (Temperature, humidity and wind dependent)	4 hours	
Post cure time (Temperature, humidity and wind dependent)	24 hours	
<i>Properties and values are highly dependent on equipment, spray gun, mix chamber temperature, pressure and related parameters. Variations are possible and expected.</i>		

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**MIXING:**

Nukote HLT-SR shall not be diluted under any circumstances. The product is ready to use.

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**SURFACE PREPARATION:****Concrete:**

The surface of a concrete subfloor should be dry, smooth, structurally sound and free of depression, scale, or foreign deposits of any kind. Remove all curing compounds. Abrasive blast, sweep blast or water blast to remove all latent material and expose voids. The surface preparation of concrete should meet and conform to Joint NACE 6/SSPC-SP

13 standards and achieve a concrete surface profile of CSP 3 to CSP 6 as per ICRI Guideline No.03732 for optimum performance.

Remove any coating, curing compound or surface finish that may interfere with penetration of HLT-SR into the concrete. Place a few drops of water on the surface to test surface porosity. If the water does not absorb immediately, additional surface preparation is required to “open up” the surface by grinding, sweep blasting, or similar technique. In hot climates, slightly dampen the surface with a mist coat of water. Apply the Nukote HLT-SR at the recommended rate with a low pressure spray overlapping by 50% on each pass. Carry out surface treatment and polyurea application to Nukote specifications.

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**APPLICATION:**

Apply with low-pressure spray apparatus or flood coat. For optimum performance, the substrate should be abrasive blasted. New concrete substrates should be allowed to cure a minimum of 7 days.

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**EQUIPMENT CLEAN UP:**

Immediate and thorough flushing with clean water while material is still wet. Dried material may require sanding or grinding for removal.

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**LIMITATIONS:**

Do not open until ready to use, and store in a sealed container after opening.

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**WARNING:**

This product may etch glass or dull shiny aluminum.

Nukote HLT-SR overspray and mist should be controlled and confined to the immediate work area, and a face mask and respirator are recommended

Nukote HLT-SR is not suitable for use on surfaces contaminated by strong acids. Clean and neutralize these conditions prior to application of Nukote HLT-SR.

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**WARRANTIES AND DISCLAIMERS:**

*Nukote Coating Systems International, a Nevada, USA LLC warrants the components of this product shall conform to the technical specifications published in the product literature. The quality and fitness of the product is dependent upon the proper application by the applicator. Nukote Coating Systems has no role in the application of the finished product other than to manufacture and supply the material. It is vital the person applying this product understands the product and is fully trained and certified in the use of the equipment and application methods. There are no warranties that extend beyond the description on the face of this instrument, except when provided in writing, directly by Nukote Coating Systems International and executed under seal by a company officer.*