
DESCRIPTION:

Nukote HLT-X is a unique surface treatment for concrete consisting of lithium-silica-colloid matrix and a reactive salt scavenger. HLT-X can be used as a concrete surface treatment to remove residual salt and reduce micro porosity in cementitious materials. In practice, HLT-X can be applied repeatedly until the surface no longer produces a mineral residue after application and drying.

When applied to salt contaminated concrete, Nukote HLT-X penetrates to react with free salts to produce a complex mineral powder residue that, after it dries, can be swept from the surface with an air blast. Nukote HLT-X also reduces the risk of coating failures associated with the presence of hydrophilic and expansive mineral salts.

Nukote HLT-X is recommended for use as a pretreatment on mineral salt contaminated surfaces. Before applying final surface treatment on floorings, liners in immersion application, and adhered waterproofing membranes - including structures under hydrostatic pressure – apply HLT-SR to further reduce micro-porosity, densify, bind unreacted calcium hydrates, and add water repellency.

FEATURES:

- Environmentally friendly with zero VOC
- Purges mineral salts by converting them to a powder that can be removed with air sweep
- Reduces the porosity and increases durability of the concrete surface
- Effective temporary chloride and electrolyte barrier
- Re-alkalizes carbonated concrete
- Reduces risk of blistering from expansive and hydrophilic salts

TYPICAL USES:

- Mineral salt purge
- Pretreatment for HLT-SR densification
- As part of a system for containment applications with concrete structures
- As part of a rehabilitation plan for deteriorated and contaminated concrete
- Concretes exposed to freeze/thaw cycles, salt and de-icing chemicals

COLORS:

Cloudy liquid dries to a white, crusty solid

PACKAGING:

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

COVERAGE:

Nukote HLT-X 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 ft²/gal to 200 ft²/gal (4 m²/l to 5 m²/l) for broom finish or 200 ft²/gal to 250 ft²/gal (5 m²/l to 6 m²/l) for burnished finish. Reapply HLT-X until no products of reaction form on the surface.

STORAGE:

Twelve months in factory delivered, unopened drums. Store on pallets and keep away from extreme light, heat, freezing conditions, and moisture. Promptly reclose opened drums and pails, and apply decanted liquid immediately unless using a closed system spray applicator.

TECHNICAL DATA (All values @ 77 °F / 25 °C)	US	Metric
Solids by volume (ASTM D2697)	10%	10%
Volatile organic compounds (ASTM D2369)	0 lb./gal	0 gm/ lit
Theoretical coverage	150-200 ft ² /gal	4-5 m ² / 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
PROCESSING PROPERTIES (Under standard lab conditions)		
Mix Ratio V/V	N/A	
Gel time	30 seconds	
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>		

MIXING:

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

SURFACE PREPARATION:

Concrete:

Concrete and cement-based screeds must be sound, clean, dry or damp and be free from materials that will impair adhesion. Completely remove weak or poorly bonded layers e.g. release agents, old adhesive, levelling compound residues or old surface finishes and paint residues.

Clean with the cleaning agent. Afterwards clean the surface with high pressure water jetting. Remove excess water with a suitable wet vacuum and allow to dry.

A continuous film of water may not be present on the surface of the concrete. The substrate may not dry out.

Dependent on the condition of the substrate to be treated suitable preparation methods should be used such as e.g. scabbling, shot blasting etc.

Remove any coating, curing compound or surface finish that may interfere with penetration of HLT-X 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-X 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.

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. Before application of the coating system, it is recommended to remove the residual of HLT-X by air blasting.

EQUIPMENT CLEAN UP:

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

LIMITATIONS:

Do not open until ready to use, and store in a sealed container after opening. Promptly reclose opened drums and pails, and apply decanted liquid immediately unless using a closed system spray applicator.

WARNING:

This product may etch glass or dull shiny aluminum.

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

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

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.