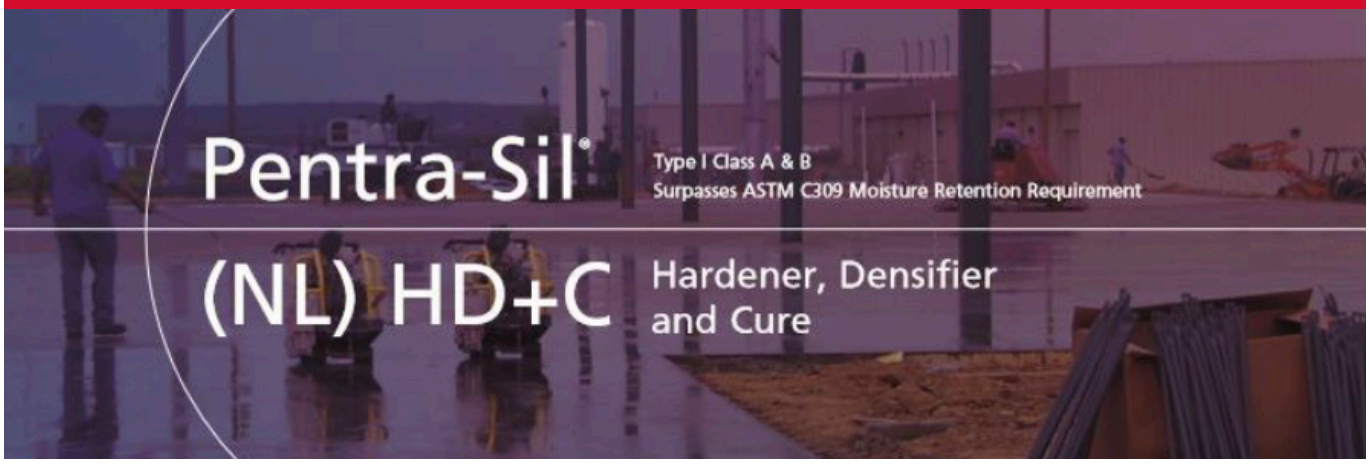
PENTRA-SIL (NL) HD+C



PRODUCT DESCRIPTION

Pentra-Sil® (NL) HD+C is a water-based, clear, dissipating membrane-forming curing compound, hardener and densifier that surpasses ASTM C-309 Liquid Membrane-Forming Compounds for Curing Concrete moisture retention requirements. This single component application forms a tougher, abrasion resistant surface compared to traditional methods requiring post-densification

(28 days later) Excellent for commercial and industrial concrete floors that need long-term protection against heavy wear and abuse, moisture, dirt and grime build up. This earth-friendly/bio-based compound contains no solvents and has a VOC content<100g/L making it compliant in all regions of The United States.

The patent-pending, all-in-one lithium formula is applied to fresh concrete slabs immediately after finishing operations are complete. The unique chemistry forms a film on the surface, restricting the amount of water that can evaporate from the concrete, while at the same time allowing the lithium silicate component to penetrate and react with the free-lime and dehydrated cement particles to improve both the curing and the hardening characteristics. This product also provides substantial benefits over solvent-based or older water-based curing technologies because it does not need sunlight to dissipate and will begin to break down within 14-28 days eliminating the cost associated with cleaning hard-to-remove curing compounds.

KEY BENEFITS

- Meets actual ASTM C-309 moisture retention.
- Cost effective, one step curing and hardening.
- Easy auto-scrub final clean up.
- Contributes to LEED EQ credit 4.2

IMPORTANT NOTES

Meeting ASTM C-309 is important. Preventing the floor from damaging effects of spills and stains or hard-to-remove curing compounds is important too. Our new all-in-one does both, eliminating up to 4 steps vs, traditional post hardening methods.

Typically densifiers take too long to dry if applied at the recommended application rate, making them difficult to apply before

700 Great South Road, Penrose
P O Box 9826, Auckland, New Zealand
www.lesasystems.co.nz

Tel: 64 9 526 7136 Fax: 64 9 525 2139
Freephone: 0800 74 LESA (0800 74 5372)
Email: sales@lesasystems.co.nz

curing. Either they are applied at lower than recommended application rates prior to conventional curing in order to get the curing compound applied post curing, usually after 28 days. When extensive and expensive cleaning is required, to remove curing resins and staining. A post-curing hardener application can also require chemical stripping and cleaning, pressure washing, or even light sandblasting to prep the floor for proper densifier application. With Pentra-Sil® (NL) HD+C the slab is densified and protected during construction, and the final cleanup is much easier, leaving the owner with a better looking at slab turnover.

ADVANTAGES

- Cures harden and densify in a single application immediately after finishing.
- Easy to apply, ready to use liquid can be applied by either the concrete finishing contractor or sub-contractor.
- Saves money and time reducing costly labour steps in application, cleaning and post re-applications.
- Does not need sunlight to dissipate and will begin to break down within 14-28 days reducing costs associated with curing compound removal.
- Non-soluble / non-expansive Lithium will not absorb water or cause the floor to sweat (surface sweating syndrome).
- Minimizes hairline cracking, dusting, spalling, and other surface defects common to improperly cured concrete.
- Provides improved resistance to chemicals, oil, grease, de-icing salts, and abrasion during construction.
- Provides an attractive sheen that enhances the natural appearance of concrete.
- Easy 1 step curing and hardening application.
- Permits easy cleanup and housekeeping reduce floor maintenance costs.
- Minimizes excessive shrinkage, thermal cracking, dusting and defects.
- Can be employed as an anti-carbonation coating.
- Will not contribute to surface crazing or surface ASR.
- Reduces alkalinity and efflorescence.

TECHNICAL DATA

Applicable Standards/Testing
ASTM C1315, Type 1 Class A
ASTM C309, Type 1 Class A & B
AASHTO M-148, Type 1 Class A

Moisture Retention: ASTM C-309: <0.52kg/m^2 in 72 hours (*0.55kg/m^2 max)

PACKAGING

Tankers		
275 Gal Tote (IBC)	2558 lbs	1,160 kgs
55 Gal Drum	512 lbs	232 kgs
5 Gal Plastic Pail	45.5 lbs	21.0 kgs

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PHYSICAL PROPERTIES

Form:	Milky white liquid, dries clear, substrate will darken slightly and have a glossy appearance
Solids:	Content 30%
Weight/gal:	8.50+/-0.015 lbs/gal
Specific Gravity:	1.11
pH:	11.0
Film:	Yes
Flash Point	N/A
VOC Content:	92 g/L*
Freeze Point:	32˚F(0˚)
Depth of Surface Penetration:	2-8mm
Complies with all applicable VOC less than 100g/L standards	

STORAGE

Keep from freezing. Shelf life is 12 months from the date of manufacture in unopened containers.

PRECAUTIONS / LIMITATIONS

- Do not apply when ambient or concrete surface temperatures are below 40˚F (4˚C).
- Do not apply over, or squeegee. Surfaces treated with Pentra-Sil® (NL) HD+C may become slippery under certain conditions or until dry.

APPLICATION

Read and follow application information and use in accordance with the Health and Safety information shown on the label. Refer to Material Safety Data Sheet for complete health and safety information.

COVERAGE / TREATMENT YEILD

Applied at a rate of 400-600 ft2/gallon. Coverage: Broomed surface-400 sq. ft/gal. (9.82 m/L). Troweled surface-600 sq. ft/gal. (14.73 sq. m/L) Drying time: Depends on weather conditions and coverage, but will generally dry in 1-3 hours @ 70˚ F (21˚C). Drying times may be extended depending on application rate, temperature, humidity and project conditions. Restrict foot traffic for at least 4 hours. 12 hours is preferable.

APPLICATION INSTRUCTIONS

Mixing (DO NOT DILUTE)

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Stir thoroughly prior to use. Do not thin or dilute. Do not over agitate with compressed air or recirculating pump. Application equipment must be clean and free of foreign materials.

PLACEMENT

Apply Pentra-Sil® (NL) HD+C immediately after all surface water has disappeared and the surface cannot be marred and after the cuts have been completed. Remove all dust and dirt prior to applying the Pentra-Sil (NL) HD+C. Application of Pentra-Sil® (NL) HD+C too early or too late can affect the overall curing performance. Use low-pressure spray, roller or brush. Apply uniformly without puddles. Spray in a uniform coat pattern and try not to overlap coats which can cause darkening. Recommended terminating at saw cuts.

DO NOT OVER APPLY OR APPLY SECOND COATS.

Apply the product at a rate of 400-600 sq.ft./gal. Use a low-pressure sprayer to apply a uniform layer on the surface. Do not puddle. Allow 1-2 days to completely dry before traffic. The product will begin to dissipate after one week. After 28 days use an auto scrubber, black pads, and water to remove any remaining cure material. If additional shine is desired apply a coat of Pentra-Finish (Li) followed by burnishing with an 800-grit pad.

PRIMARY INDUSTRIAL MARKETS SERVED

Commercial & Institutional

Business Office Buildings

Cafeterias/restaurants

Correctional institutions

Retail & shopping centers

Schools/education facilities

Sports & entertainment venues.

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