



Pentra-Sil®

(H) Dustproofing, Hardener

Convergent Concrete Technologies, LLC.

Specialty Chemical Concrete Treatments

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nanoLithium
Patented Technologies by Advan
Nano-Lithium® (NL)
Concrete Treatment
www.nano-lithium.com

PRODUCT DESCRIPTION

Pentra-Sil® (H) is a premium lithium polysilicate hardener for fresh, newly-troweled concrete and tilt-up construction slabs. This fast-drying reactive formula provides maximum hardening to improve abrasion resistance and reduce dusting with a simple, one-coat application. Curing compounds can be applied directly on top of treated surfaces to enhance hydration without the discoloration and whitening associated with traditional hardeners. The treatment leaves no film, reduces application time and cost, and allows most curing compounds to be more easily removed with scrubbing after concrete is cured, typically 28 days.

This easy-to-use water-based solution requires no rinsing and is VOC compliant. The treatment creates a surface that is dense yet breathable, forming an extremely hard surface. When applied to new concrete, it penetrates up to ¼ inch (7mm) where it reacts with free calcium to form insoluble calcium silica hydrate, which makes concrete more water, stain, and abrasion resistant for easier maintenance and a longer life.

KEY BENEFITS

- Easy application, no rinsing required
- Penetrates, no film to lift or peel off
- Reduces efflorescence and surface sweating
- Does not contribute to surface ASR or surface crazing
- Compatible with integrally colored concrete, stains and dyes.
- Allows curing compounds to be more easily removed with simple scrubbing.
- Bond-breakers can be applied directly on top for tilt-up construction applications
- Ensures uniformly hardened and densified concrete.
- Prolongs finish of polished surfaces
- Resists stains and dusting, making concrete easier to maintain
- VOC Compliant, can contribute to LEED points

CUSTOMER SERVICE:

(1-866-375-2280) to verify the most current versions, visit our website: www.convergentconcrete.com or scan the code.

**USES**

- **New Construction** - power-troweled concrete and tilt-up construction slabs.
- **Commercial:** Grocery Stores, Office Building, Retail, Banks, Malls, Warehouses, Distribution Centers
- **Industrial:** Food Processing Facilities, Cold Storage / Freezers, Beverage and Manufacturing Plants
- **Institutional:** Churches, Hospitals, Universities, Schools, Museums Theme & Leisure: Resorts, Hotels, Casinos, Restaurants, Theaters
- **Governmental:** Federal & State Buildings, Prisons
- **Residential:** Concrete floors and Garages

IMPORTANT NOTICE:

This information is accurate to the best of our knowledge and is to be used as a guide to product selection. However, since the conditions of handling, installation and use are beyond our control, we make no guarantee of results. When in doubt, please test first.

Make certain the most current version of the **Pentra-Sil® (H)** Dustproofing, Hardener Product Data sheet and MSDS are being used. Please read this information prior to use; call Customer Service (1-866-375-2280) to verify the most current versions or visit our website: www.convergentconcrete.com where you can also find additional tips, guidelines and specifications. Proper application is the responsibility of the user. Field visits by Convergent Concrete personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the job site.

For mechanically polishing/honing floors, we recommend **Pentra-Sil (IH)** Impregnating Hardener. If higher performance is needed, use **Pentra-Sil (HD)** Hardener, Densifier to seal the surface and provide enhanced chemical and abrasion resistance. If concrete is integrally colored, stained or dyed, we recommend **Pentra-Sil (HDS)** Hardener, Densifier, Sealer followed by **Pentra-Finish®** High Performance gloss, stain, and wear protection for maximum protection and appearance.

APPLICATION

BEFORE APPLICATION, ALWAYS DO A SMALL TEST SAMPLE IN A LESS-VISIBLE AREA TO BE SURE THERE ARE NO VARIABLES OR CONTAMINANTS IN THE SUB-STRATE THAT MAY BE INCOMPATIBLE WITH THIS PRODUCT.

Placement: Using an HVLP sprayer, or a good pump up sprayer for smaller jobs, spray **PENTRA-SIL® (H)** Dustproofing, Hardener evenly on the surface. Spread out any pools with a soft bristle broom or a flat microfiber pad. If areas begin to dry out before 20 minutes (edges, high spots) spray on more material. Surface is ready for use when dry, but the complete reaction may take up to two weeks to develop depending on site temperature and conditions.

In cool, humid, or enclosed conditions, **PENTRA-SIL® (H)** Dustproofing, Hardener may stay wet for a long time. After 1 hour of dwell time, use an auto-scrubber to rinse the surface and pick up excess material.

If concrete is dyed, acid stained, or integrally colored, it may be advisable to clean with scrubbing equipment once the application is complete to produce a more even finish. To enhance the color intensity, gloss and light reflectance, and to reduce efflorescence, mineral deposits and staining use **PENTRA-FINISH** High-gloss, Stain and Wear Protector in conjunction with **PENTRA-SIL (H)** Dustproofing, Hardener as a post-applied topical treatment.

TECHNICAL SERVICE

Customer Care
Toll Free 866-375-2280 or
801-375-2280

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concrete.com

WEB

www.convergentconcrete.com

**For chemical/medical
emergencies only,**

Call Infotrac 800-535-5053
Outside USA 352-323-3500

On newly placed concrete, **PENTRA-SIL® (H)** Dustproofing, Hardener may be applied immediately after the finishing, or immediately after joints have been cut and cleaned, or anytime thereafter, at the project manager's discretion. CONVERGENT CONCRETE TECHNOLOGIES, LLC approved membrane forming curing materials or bond breakers may be applied over the top of **PENTRA-SIL® (H)** Dustproofing, Hardener once it is no longer wet on the surface. Contact CONVERGENT for recommendations.

ESTIMATED COVERAGE

Steel Troweled Finish-- 500-750 ft² per gallon (1 liter per 12 to 19m²) Coverage rate will vary with concrete finish and porosity may require more material.

CLEAN UP

Use soap and water to clean tools and equipment. Although **PENTRA-SIL® (H)** Dustproofing, Hardener is non-toxic and environmentally safe, it is alkaline—use up or dry out extra material and dispose of according to local regulations. Don't pour into sewer systems or storm drains.

MAINTENANCE

Clean up spills promptly. Regular aggressive scrubbing with neutral cleaners is recommended. Avoid cleaners containing citrus or butyl compounds, or cleaners with a pH below 7.

LIMITATIONS

Pentra-Sil® (H) will not bridge or fill cracks and will not salvage honeycombed or structurally unsound surfaces. Not suitable for asphalt, non-cement surfaces or painted surfaces. (Paint and coatings may be applied over the top of **Pentra-Sil® (H)**—follow paint or coating manufacturer's instructions.)

PRECAUTIONS

READ MSDS PRIOR TO USING PRODUCT

- KEEP OUT OF REACH OF CHILDREN.
- Although this product is non-toxic and non-hazardous, it is alkaline. Do not drink. If swallowed, do not induce vomiting, call physician.
- Keep container closed tightly when not in use. Wear goggles and gloves. If splashed in eyes, rinse eyes immediately with clean water and call a physician if irritation persists.
- **PENTRA-SIL® (H)** Dustproofing, Hardener will dry out and irritate the skin. Clean skin with soap and water promptly.
- Additional precautions, safety information and first aid treatments are contained in the Material Safety Data Sheet.
- **PENTRA-SIL® (H)** Dustproofing, Hardener will bond to most surfaces immediately, so wash off over spray with water and mild detergent.
- CAUTION: Surfaces wet with **PENTRA-SIL® (H)** Dustproofing, Hardener may be slippery.

PROPERTIES

Active Ingredients:	100% of total solids	Total Solids: 8.8%
Specific Gravity:	1.05	
Wt/GAL:	8.79 lbs.	
pH:	11	
VOC Content:	<50g/L	
Flash Point:	N/A	
Freeze Point:	32°F (0°C)	
Shelf Life:	2 Years in unopened factory sealed container	

PACKAGING

- 1 Gal • 8.7 lbs • 3.95 kgs
- 5 Gal Pail • 43.5 lbs • 19.73 kgs
- 55 Gal Drum • 478.5 lbs • 217 kgs
- 275 Gal Tote • 2,376 lbs • 1,077 kgs

TECHNICAL SERVICE**CUSTOMER CARE:**

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Outside USA (352) 323-3500

WARRANTY

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Refer to www.convergentconcrete.com for latest Technical Data Sheet and MSDS.

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UNIQUE STRENGTHS, UNMATCHED PERFORMANCE™

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