

# Pentra<sup>®</sup> -Sil

**(HDS)** Color Shielding, Hardener,  
Densifier, Sealer

Convergent Group S.A.

Specialty Chemical Concrete  
Treatments Commercial

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**nanoLithium**

Patented Technologies by Advan

Nano-Lithium<sup>®</sup> (NL)  
Concrete Treatment  
[www.nano-lithium.com](http://www.nano-lithium.com)



## PRODUCT DESCRIPTION

**Pentra<sup>®</sup>-Sil (HDS)** is a specially formulated penetrating hardener, densifier and sealer for colored, dyed or acid stained concrete and terrazzo surfaces. Ideal for the grinding and polishing process of integrally colored, dyed or acid-stained concrete. With color shielding and efflorescence control, this unique densifier substantially enhances the color depth, increases the abrasion resistance and protects against water and/or other contaminants. Ideal for re-polishing and restoring worn and damaged surfaces. Transforms dulled surfaces into vibrant lustrous finishes exhibiting a glossy satin sheen. **Pentra<sup>®</sup>-Sil (HDS)** Protective color guard treatment rapidly produces a harder surface that is easy to grind and polish. Its deep penetrating, non-soluble characteristics provide longer life and higher reflectivity, helping reduce ongoing maintenance costs.

This environmentally friendly treatment reduces alkalinity and efflorescence, and controls dusting. Used while polishing concrete and terrazzo, **Pentra<sup>®</sup>-Sil (HDS)** enhances the process producing more durable results and minimizing damage to abrasives. When properly installed, **Pentra<sup>®</sup>-Sil (HDS)** will not leave surface bloom (whitish film or residual deposits) that are difficult to remove. Only one coat is required (compared to sodium or potassium silicates), application is simplified, and wastewater disposal is minimal.

**Pentra<sup>®</sup>-Sil (HDS)** will not contribute to alkali-silicate reactivity (ASR).

## KEY BENEFITS

- Protects against salt and freeze/thaw damage
- Hardens, densifies, and dust-proofs
- Easy-to-use, low odor, no rinsing required
- Defense against water and harmful substances
- Not susceptible to UV damage
- Breathable—allows interior moisture to escape without damaging sealer
- Penetrates—no film to lift or peel off
- Reduces efflorescence and surface sweating
- Does not contribute to surface ASR or promote crazing
- VOC Compliant, can contribute to LEED points (IEQ credit 4.2 non-emitting materials)
- Resists water, stains and dusting, making concrete and facilities easier to maintain

**CUSTOMER SERVICE:**

(+32 60 390 752) to verify the most current versions, visit our website: [www.convergent-group.com](http://www.convergent-group.com) or scan the code.

**USES**

For all acid stained, dyed, or colored concrete and terrazzo (interior and exterior) including lobbies, restaurants, schools, offices, banks, hotels, resorts, churches, prisons, government facilities, airports, retail outlets, convenience stores, museums, convention centers, and courtyards, etc.

**APPLICATION**

**Precautions:** Before application, always do a small test sample in a less-visible area to be sure there are no variables or contaminants in the substrate that may be incompatible with this product. Apply only when temperatures will be above 2°C for at least 4 hours following application. Clean surface to remove any dirt, laitance, curing compounds or coatings that may prevent **Pentra®-Sil (HDS)** from penetrating the surface. Do not use citrus or acidic cleaners. If acid dyes or cleaners have been used, neutralize the surface using an alkali cleaner (TSP, Tide laundry detergent, etc.). Do not use high pressure sprayers. In hot, windy conditions, it may be necessary to spray water on hot concrete to cool the surface prior to application so **Pentra®-Sil (HDS)** does not flash-dry on the surface. If **Pentra®-Sil (HDS)** comes into contact with glass, fabric, metal, or painted surfaces, immediately wipe contaminated surfaces with a damp cloth, then wipe dry with a second clean cloth.

Using an HVLP sprayer, or a pump-up sprayer for smaller jobs, spray **Pentra®-Sil (HDS)** evenly on the surface. Spread out any pools with a soft bristle broom or a flat microfiber pad. Keep surface wet for at least 20 minutes, adding more material where needed. 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 (HDS)** 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, after 20-30 minutes of dwell time, use scrubbing equipment to rinse the surface and pick up excess material. For wet grinding/polishing applications, rinse and remove slurry between grinding grits.

For higher gloss and increased stain and wear resistance, wait at least one hour and then apply **Pentra®-Finish (HG)**. See **Pentra®-Finish (HG)** data sheet for application instructions at [www.convergent-group.com](http://www.convergent-group.com)

## ESTIMATED COVERAGE

The application rate is determined by the porosity of the surface. Previously densified floors require less material than non-treated. Concrete ground to 200-400 grit surface profile typically requires an application rate of approximately 11-14 m<sup>2</sup>/L (11-14m = 2 \\* Arabic 2 / liter). If concrete is damaged, it may be necessary to use a 50-60 grit resin or metal disc to open up the floor. Use **Pentra®-Sil (IH)** for re-densification rather than **Pentra®-Sil (HDS)**.

## CLEAN UP

Use soap and water to clean tools and equipment. Although **Pentra®-Sil (HDS)** 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

Routine sweeping, mopping, washing and mechanical scrubbing of floors with neutral pH cleaners/water is recommended. DO NOT USE acidic or citrus cleaners to maintain the floor.

## SAFETY / HEALTH INFORMATION

**Pentra®-Sil (HDS)** is an aqueous Lithium polysilicate solution. The treatment is alkaline and may cause eye and skin irritation. KEEP OUT OF THE REACH OF CHILDREN. Do not take internally. Avoid prolonged contact with skin. Avoid ingestion of material. If swallowed, do not induce vomiting—Call physician. Avoid contact with eyes. Protective clothing is recommended. Protective goggles are recommended in case of splashing. If splashed in eyes, wash immediately with clean water and call physician if irritation persists. Contact areas should be thoroughly washed with soap and water. Additional precautions, safety information and first aid treatments are contained in the Material Safety Data Sheet.

**Pentra®-Sil (HDS)** will bond to most surfaces - immediately wash off over spray with water and mild detergent. **CAUTION:** Surfaces wet with **Pentra®-Sil (HDS)** may be slippery.

## PROPERTIES

Active Ingredients:	100% of total solids
Specific Gravity:	1.10
pH:	11
VOC Content:	<50g/L
Flash Point:	N/A
Freeze Point:	0°C
Shelf Life:	1 Year in unopened factory sealed container

## PACKAGING

20 L Basket  
200 L Drum  
600 L Tote  
1000 L Tote

## LIMITATIONS

**Pentra®-Sil (HDS)** 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 (HDS)**—follow paint or coating manufacturer's instructions

**TECHNICAL SERVICE**

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CONCRETE TECHNOLOGIES

Refer to [www.convergent-group.com](http://www.convergent-group.com) for latest Technical Data Sheet and MSDS.

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