

# Pentra®-Sil

(244+) Salt Protection, Dust-Proof, Hardener, Densifier and Sealer

Convergent Group S.A.

Specialty Chemical Concrete  
Treatments Commercial

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## PRODUCT DESCRIPTION

**Pentra®-Sil (244+)** is a premium hardener, densifier and sealer with hydrophobic properties ideal for protecting concrete and masonry surfaces against the damage of wind-driven rain, freeze-thaw, moisture, and chloride ion intrusion. **Pentra®-Sil (244+)** combines the benefits of lithium silicate densification with reactive silicone chemistry to meet the NCHRP 244 standard for chloride protection of concrete in a single application. The reactive treatment reduces permeability, helps prevent efflorescence leaching and provides chloride ion resistance to deter reinforcing steel corrosion and spalling. When sprayed on new or existing concrete, it penetrates 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 longer life.

## 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

## NEW AND EXISTING CONCRETE / INTERIOR EXTERIOR

Parking Garages, Firestations, Sidewalks, Loading Docks, Aircraft hangars, Auto - motive dealerships, Shipping terminals, Vehicle maintenance areas, Office buildings, Health care facilities, Cafeterias/restaurants, Correctional institutions, Retail & shopping centers, Schools, Stadiums, Veterinary clinics, Common Areas, Aisles/corridors, Clean rooms, Kitchens, Laboratories, Lobbies, Mechanical rooms, Mezzanines, Restrooms & showers, Manufacturing, Warehousing, Storage, Distribution centers, Food processing plants, Textile mills, Wastewater treatment plants, Pharmaceutical, Electronic facilities, Cold Storage/ Freezers, Beverage bottling, Chemical Processing.

## 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 SUBSTRATE THAT MAY BE INCOMPATIBLE WITH THIS PRODUCT.**

Precautions: 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 (244+)** 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 (244+)** does not flash-dry on the surface. If **Pentra®-Sil (244+)** 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 (244+)** 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 (244+)** 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. After bringing the surface to the desired surface profile by grinding or buffing, **Pentra®-Sil (244+)** may be applied to enhance gloss, stain, and wear protection.

Interior: On newly placed interior machine-troweled concrete, **Pentra®-Sil (244+)** 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. If at time-of-placement, curing materials/bond breakers may be applied over the top of **Pentra®-Sil (244+)** once it is no longer wet on the surface.

Exterior: On exterior concrete that has not been machine-troweled, wait until the surface is hard enough to bear foot traffic without damage before applying **Pentra®-Sil (244+)**. If conditions are such that the project manager deems it necessary to apply curing materials before the surface is hard enough to bear foot traffic, it may be necessary to apply **Pentra®-Sil (244+)** at a later time after removing the curing material.

## ESTIMATED COVERAGE

On horizontal surfaces, the liquid material should pond on the surface for at least 20 minutes. Coverage rates on steel troweled concrete: 1 liter per 14 to 19 m<sup>2</sup>. Broom Finished: 1 liter per 6 to 8.5m<sup>2</sup>. \*Coverage rate will vary with concrete mix, finish, and environment. For use on horizontal interior, exterior, above grade applications.

Make certain the most current version of the **Pentra®-Sil (244+)** Product Data sheet and MSDS are being used. Please read this information prior to use; call Customer Service (+32 60 390 752) to verify the most current versions or visit our website: [www.convergent-group.com](http://www.convergent-group.com) where you can also find additional tips, guidelines and specifications. Proper application is the responsibility of the user. Field visits by Convergent Group personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the job site.

## CLEAN UP

Use soap and water to clean tools and equipment. Although **Pentra®-Sil (244+)** 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.

## FINAL RESULTS

Typical drying time is 1-2 hours for both vertical and horizontal surfaces. Floors are ready for traffic and use when dry. A light lithium residue may form on the surface after the surface is dry. This is excess **Pentra®-Sil (244+)** that was not absorbed and can be removed with a stiff broom, power sweeper or floor machine (if required). Water repellency and hardness continues to develop for up to 7 days following the application; however, significant results should be visible within 24 hours.

## SAFETY/HEALTH INFORMATION

KEEP OUT OF REACH OF CHILDREN. This product is alkali. Do not drink. If swallowed, do not induce vomiting, drink 2 glasses of water and 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 (244+)** will dry out and irritate the skin. Clean skin with soap and water promptly. CAUTION: Surfaces wet with **Pentra®-Sil (244+)** may be slippery. Additional precautions, safety information and first aid treatments are contained in the Material Safety Data Sheet.

## 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 (244+)** 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 (244+)**—follow paint or coating manufacturer's instructions for surface preparation.)

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**WARRANTY**

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