



Convergent Concrete Technologies, LLC.

Specialty Chemical Concrete Treatments

115 North 1380 West Orem, Utah 84057 United States of America

Office: 801-375-2280

www.convergentconcrete.com



## **PRODUCT DESCRIPTION**

Pentra-Sil® (244+) is a premium Nano-Lithium® hardener, densifier and hydrophobic sealer ideal for protecting concrete and masonry surfaces against damage from freeze-thaw cycles, moisture, and chloride ion intrusion.

Pentra-Sil® (244+) combines the benefits of Nano-Lithium® 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 and helps prevent efflorescence and spalling. When applied to concrete, it penetrates and reacts with calcium hydroxide to form insoluble calcium silicate hydrate, making the treated concrete more water, stain, and abrasion resistant for easier maintenance and longer life.

This product is not recommended as a "Time of Placement" densifier. Due to the very high solids content of this product, 244+ should not be applied for a minimum of 7 days after the concrete has been placed. The high solids content responsible for this products' unparalleled performance, may react with the high-moisture content in concrete less than seven (7) days old, resulting in white staining if the product is applied sooner than seven days after the concrete is poured.

## **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 moisture to escape without damage to the surface
- Penetrates--no film to lift or peel off
- Reduces efflorescence and surface sweating
- Does not contribute to surface ASR or promote crazing
- VOC compliant, may contribute to LEED points (IEQ credit)

Pentra-Sil® (244+)

#### **Customer Service:**

Call 1-866-375-2280

Visit our website:

www.convergentconcrete.com

Or scan the code:



#### **USES**

Pool Decks, Grocery Stores, Parking Garages, Fire Stations, Sidewalks, Driveways, Loading Docks, Aircraft Hangars, Automotive Dealerships, Shipping Terminals, Vehicle Maintenance Areas, Office Buildings, Healthcare Facilities, Cafeterias/Restaurants, Correctional Institutions, Retail & Shopping Centers, Schools, Stadiums, Veterinary Clinics, Common Areas, Laboratories, Lobbies, Mechanical Rooms, Mezzanines, Manufacturing Facilities, Warehouses, Storage, Distribution Centers, Food Processing Plants, Textile Mills, Wastewater Treatment Plants, Pharmaceutical Plants, Electronic Facilities, Cold Storage/Freezers, Beverage Bottling Plants, Chemical Processing Plants, etc.

#### **APPLICATION**

Apply only when temperatures will be above 40°F (4°C) for at least 2 hours following application.

Clean surface to remove any dirt, laitance, curing compounds or coatings that may prevent Pentra-Sil® (244+) from penetrating. Do not use citrus or acidic cleaners. If acidic or d-limonene cleaners have been used, neutralize the surface using an alkaline cleaner (TSP, Tide laundry detergent, etc.).

Using a sprayer, apply Pentra-Sil® (244+) evenly on the surface. Keep the surface wet with product for at least 20 minutes, adding more product where needed.

On newly placed, broom-finished concrete, Pentra-Sil® (244+) may be applied seven days following finishing. As the material dries into the surface, spread out any puddles with a soft bristle broom. If curing materials have been applied, it may be necessary to apply Pentra-Sil® (244+) at a later time after removing the cure.

On machine-troweled, dyed, acid stained, or integrally colored concrete, after 20-30 minutes of dwell time, use scrubbing equipment with water to rinse the surface and pick up excess material.

The surface is ready for use when dry.

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\*It may be necessary to spray water on hot concrete with a surface temperature above 90°F (32°C) to cool the surface prior to application so Pentra-Sil® (244+) does not flash-dry on the surface. Proceed with product application once the surface is dry.

\*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.

## **ESTIMATED COVERAGE**

Machine-troweled: 600-800 ft<sup>2</sup> per gallon (14.7-19.6 m<sup>2</sup> per liter) Broom-finished: 250-350 ft<sup>2</sup> per gallon (6.1-8.6 m<sup>2</sup> per liter)

\*Coverage rate will vary with concrete porosity and environmental conditions.

# **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. Do not pour into sewer systems or storm drains.

Pentra-Sil® (244+)

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#### **Technical Service**

**Customer Care:** 

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

### **Email:**

info@convergentconcrete.com

#### Web:

www.convergentconcrete.com

### For Chemical/Medical Emergencies:

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

### **MAINTENANCE**

Clean with Pentra-Clean™ (CR), Pentra-Clean™ (DC) or neutral pH cleaners as needed. If additional protection or gloss is desired, apply Pentra-Finish™ (HG), Pentra-Pel™ (SI), or Pentra-Guard® (EXT). Consult a Convergent Concrete Representative for further information.

#### SAFETY/HEALTH INFORMATION

KEEP OUT OF REACH OF CHILDREN.

Do not drink. If swallowed, do not induce vomiting; drink two glasses of water and call a physician. Wear goggles and gloves. If splashed in eyes, rinse eyes immediately with clean water and call a physician if irritation persists. Clean skin with soap and water.

CAUTION: Surfaces wet with Pentra-Sil® (244+) may be slippery.

Additional precautions, safety infor-mation and first aid treatments are contained in the Safety Data Sheet.

### **PROPERTIES**

Form: Liquid

Color: Red tint, dries clear Odor: Slight to none Total Solids: 17.1% Specific Gravity: 1.10

pH: 11-12

VOC Content: <50g/L Flash Point: N/A Freeze Point: 32°F (0°C)

Shelf Life: 1 year in unopened, sealed container

### **PACKAGING**

1-Gal Jug • 3.79 L 5-Gal Pail • 18.93 L 55-Gal Drum • 208.20 L 275-Gal Tote (IBC) • 1040 L

## **LIMITATIONS**

A light lithium residue may form on the surface after the product dries. This is excess Pentra-Sil® (244+) that was not absorbed and can be removed with a stiff broom or auto-scrubber. If the product is heavily overapplied, mechanical abrasion may be required to remove excess build-up.

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+).

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.

Make certain the most current versions of the Pentra-Sil® (244+) Product Data Sheet and SDS are being used. Call Customer Service (1-866-375-2280) or visit our website (www.convergentconcrete.com) to 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.

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## **WARRANTY**

The product and application information contained herein is offered in good faith and we believe it to be accurate. However, since conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure that our products are safe, effective, and fully satisfactory for the intended end use. Suggestions of use shall not be taken as inducements to infringe any patent. Convergent Concrete Technologies, LLC.'s sole warranty is that our products will meet our specifications at the time of shipment. Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted.

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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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