



Convergent

Pentra-Sil[®] (244+)

Salt Protection, Dust-Proof, Hardener, Densifier and Sealer

Adhesives Technology Corporation,
A Meridian Brand

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

1-800-892-1880

www.atcepoxy.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

- UL 2818 – 2022 GreenGuard Gold Certification for low chemical emissions - Gold Standard for Chemical Emissions for Building Materials, Finishes and Furnishings
- 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)
- 30.4% abrasion resistance over untreated concrete (ASTM C779; Type 1L cement)
- 8.4% improvement in water absorption (ASTM C642; Type 1 cement); 5.9% improvement in water absorption (ASTM C642; Type 1L cement)

Customer Service:
Toll Free 1-800-892-1880

Visit our website:
www.atcepoxy.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.

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.

**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 ft² per gallon (14.7-19.6 m² per liter)

Broom-finished: 250-350 ft² per gallon (6.1-8.6 m² 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 nontoxic 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.

Technical Service

Customer Service:

Toll Free 1-800-892-1880

Email:

atcinfo@atcepoxy.com

Web:

www.atcepoxy.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 Adhesives Technology Corp. 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 information 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 (1-800-892-1880) or visit our website (www.atcepoxy.com) to find additional tips, guidelines and specifications. Proper application is the responsibility of the user.

Technical Service

Customer Service:

Toll Free 1-800-892-1880

Email:

atcinfo@atcepoxy.com

Web:

www.atcepoxy.com

For Chemical/Medical Emergencies:

Infotrac 800-535-5053

Outside USA 352-323-3500

WARRANTY

LIMITED WARRANTY NOTICE. Every reasonable effort is made to apply exacting standards both in the manufacture of our products and in the information that we issue concerning these products and their use. We warrant our products to be of good quality and will replace or, at our election, refund the purchase price of any products proved defective. Satisfactory results depend not only upon quality products, but also upon many factors beyond our control. Therefore, except for such replacement or refund, ADHESIVES TECHNOLOGY CORP. MAKES NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY, RESPECTING ITS PRODUCTS, and ADHESIVES TECHNOLOGY CORP. shall have no other liability with respect thereto. Any claim regarding product defect must be received in writing within one (1) year from the date of shipment. No claim will be considered without such written notice or after the specified time interval. User shall determine the suitability of the products for the intended use and assume all risks and liability in connection therewith. Any authorized change in the printed recommendations concerning the use of our products must bear the signature of ADHESIVES TECHNOLOGY CORP.'S Research Director. This information and all further technical advice are based on ADHESIVES TECHNOLOGY CORP.'S present knowledge and experience. However, ADHESIVES TECHNOLOGY CORP. assumes no liability for providing such information and advice including the extent to which such information and advice may relate to existing third party intellectual property rights, especially patent rights. In particular, ADHESIVES TECHNOLOGY CORP. disclaims all WARRANTIES, WHETHER EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY. ADHESIVES TECHNOLOGY CORP. SHALL NOT BE RESPONSIBLE FOR CONSEQUENTIAL INDIRECT OR INCIDENTAL DAMAGES (INCLUDING LOSS OF PROFITS) OF ANY KIND. ADHESIVES TECHNOLOGY CORP. reserves the right to make any changes according to technological progress or further developments. It is the customer's (Authorized Applicator) responsibility and obligation to carefully inspect and test any incoming goods. Performance of the product(s) described herein should be verified by testing and carried out only by qualified experts. It is the sole responsibility of the customer to carry out and arrange for any such testing. Reference to trade names used by other companies is neither a recommendation, nor an endorsement of any product and does not imply that similar products could not be used. ADHESIVES TECHNOLOGY CORP. reserves the right to change specifications referred to in this literature at any time, without prior notice. The information contained herein is, to our knowledge, true and accurate. While this material is furnished in good faith, no warranty expressed or implied, of merchantability, completeness, fitness or otherwise is made. This material is offered only for your consideration, investigation and verification, and ADHESIVES TECHNOLOGY CORP. disclaims any liability incurred from the use thereof and shall not in any event, be liable for any special, incidental or consequential damages arising from such use. This information is not intended to be all inclusive and the manner and conditions of use and handling of any material may involve other or additional considerations specific to the use or user. Nothing herein should be construed as permission or recommendation to infringe any patent or as to any specific use. No agent, representative or employee of this company is authorized to vary any term of this notice.

Refer to www.atcepoxy.com for latest Technical Data Sheet and Safety Data Sheet.

Adhesives Technology Corp., A Meridian Brand, 115 North 1380 West Orem, Utah 84057 801-375-2280

Products manufactured and marketed by Adhesives Technology Corporation are protected by U.S. Patents and pending patents and/or pending patents under license in the United States and other countries.
Revision date 070925

Technical Service

Customer Service:

Toll Free 1-800-892-1880

Email:

atcinfo@atcepoxy.com

Web:

www.atcepoxy.com

For Chemical/Medical Emergencies:

Infotrac 800-535-5053

Outside USA 352-323-3500

WARRANTY

LIMITED WARRANTY NOTICE. Every reasonable effort is made to apply exacting standards both in the manufacture of our products and in the information that we issue concerning these products and their use. We warrant our products to be of good quality and will replace or, at our election, refund the purchase price of any products proved defective. Satisfactory results depend not only upon quality products, but also upon many factors beyond our control. Therefore, except for such replacement or refund, ADHESIVES TECHNOLOGY CORP. MAKES NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY, RESPECTING ITS PRODUCTS, and ADHESIVES TECHNOLOGY CORP. shall have no other liability with respect thereto. Any claim regarding product defect must be received in writing within one (1) year from the date of shipment. No claim will be considered without such written notice or after the specified time interval. User shall determine the suitability of the products for the intended use and assume all risks and liability in connection therewith. Any authorized change in the printed recommendations concerning the use of our products must bear the signature of ADHESIVES TECHNOLOGY CORP.'S Research Director. This information and all further technical advice are based on ADHESIVES TECHNOLOGY CORP.'S present knowledge and experience. However, ADHESIVES TECHNOLOGY CORP. assumes no liability for providing such information and advice including the extent to which such information and advice may relate to existing third party intellectual property rights, especially patent rights. In particular, ADHESIVES TECHNOLOGY CORP. disclaims all WARRANTIES, WHETHER EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY. ADHESIVES TECHNOLOGY CORP. SHALL NOT BE RESPONSIBLE FOR CONSEQUENTIAL INDIRECT OR INCIDENTAL DAMAGES (INCLUDING LOSS OF PROFITS) OF ANY KIND. ADHESIVES TECHNOLOGY CORP. reserves the right to make any changes according to technological progress or further developments. It is the customer's (Authorized Applicator) responsibility and obligation to carefully inspect and test any incoming goods. Performance of the product(s) described herein should be verified by testing and carried out only by qualified experts. It is the sole responsibility of the customer to carry out and arrange for any such testing. Reference to trade names used by other companies is neither a recommendation, nor an endorsement of any product and does not imply that similar products could not be used. ADHESIVES TECHNOLOGY CORP. reserves the right to change specifications referred to in this literature at any time, without prior notice. The information contained herein is, to our knowledge, true and accurate. While this material is furnished in good faith, no warranty expressed or implied, of merchantability, completeness, fitness or otherwise is made. This material is offered only for your consideration, investigation and verification, and ADHESIVES TECHNOLOGY CORP. disclaims any liability incurred from the use thereof and shall not in any event, be liable for any special, incidental or consequential damages arising from such use. This information is not intended to be all inclusive and the manner and conditions of use and handling of any material may involve other or additional considerations specific to the use or user. Nothing herein should be construed as permission or recommendation to infringe any patent or as to any specific use. No agent, representative or employee of this company is authorized to vary any term of this notice.

Refer to www.atcepoxy.com for latest Technical Data Sheet and Safety Data Sheet.

Adhesives Technology Corp., A Meridian Brand, 115 North 1380 West Orem, Utah 84057 801-375-2280

Products manufactured and marketed by Adhesives Technology Corporation are protected by U.S. Patents and pending patents and/or pending patents under license in the United States and other countries.
Revision date 032625