

TECHNICAL DATA SHEET

DESCRIPTION

PENTRA-HARD[®] DENSIFIER is advanced lithium chemistry that hardens and dustproofs new and existing concrete. This easy-to-use water-based solution requires no rinsing and is VOC compliant in all areas of the world. When sprayed on new or existing concrete, it penetrates into the concrete, 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. It is also suitable for concrete polishing procedures and helps prolong the life of polished finishes.

For applications where greater shine and stain resistance is required (schools, restaurants, retail, grocery, commercial, etc.) the **DURABLE FLOOR SYSTEM[™] (DFS)** is recommended. For this system, PENTRA-HARD[®] FINISH is applied directly over the top of PENTRA-HARD[®] DENSIFIER. Ask your Dayton Superior representative for more details on this product/system.

USE

New and Existing Concrete

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

FEATURES

- Easy application, no rinsing required
- Penetrates, no film to lift or peel off
- Reduces efflorescence and surface sweating
- Does not contribute to surface ASR
- VOC Compliant, can contribute to LEED points
- Prolongs finish of polished surfaces
- Resists stains and dusting, making concrete easier to maintain

PROPERTIES

Active Ingredients: 100% of total solids

Total Solids: 8.8%

Specific Gravity: 1.05

Wt/gal: 8.79 lbs.

pH: 11

Flash Point: NA

Freeze Point: 32°F (0°C)

V.O.C.

Less than 50 g/L. Compliant with all US VOC regulations including Federal EPA, OTC, LADCO, SCAQMD & CARB.

ESTIMATING GUIDE

New Construction Steel Troweled 400-650 sq. ft./gal.
(9.82– 15.95 sq m/L)

Texture and absorption of surface will determine final coverage rates. Porous concrete surfaces may require additional material.

PACKAGING

ITEM #	PACKAGE	SIZE	
		Gallons	Liters
143610	Pail	5	18.93
143611	Drum	55	208.20
143612	Tote	275	1040.99

STORAGE

Keep from freezing. Shelf life is 36 months from date of manufacture, properly stored in original unopened containers.

APPLICATION

Surface Preparation: Precautions: Apply only when temperatures will be above 36° F (2° C) for at least 4 hours following application. In hot, windy conditions, apply in the early morning or at night. It may be necessary to spray water on hot concrete to cool the surface prior to application so PENTRA-HARD[®] DENSIFIER does not flash-dry on the surface. Clean surface to remove any dirt, laitance, curing compounds or coatings that may prevent PENTRA-HARD[®] DENSIFIER 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 as they may over atomize the material. Do not allow PENTRA-HARD[®] DENSIFIER to come 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.

Mixing: Mildly agitate before each use.

PENTRA-HARD® DENSIFIER

Lithium Concrete Hardener, Dustproofer, Sealer

Placement: Using an HVLP sprayer, or a good pump up sprayer for smaller jobs, spray PENTRA-HARD® DENSIFIER 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.

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-HARD® FINISH High-gloss, Stain and Wear Protector in conjunction with PENTRA-HARD® DENSIFIER as a post-applied topical treatment.

On newly placed concrete, PENTRA-HARD® DENSIFIER 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. Dayton Superior approved membrane forming curing materials or bond breakers may be applied over the top of PENTRA-HARD® DENSIFIER once it is no longer wet on the surface. Contact Dayton Superior for recommendations.

CLEAN UP

Use soap and water to clean tools and equipment. Although PENTRA-HARD® DENSIFIER is non-toxic and environmentally safe, it is alkali—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

FOR PROFESSIONAL USE ONLY

PENTRA-HARD® DENSIFIER will not bridge or fill cracks and will not salvage honeycombed or structurally unsound surfaces.

Not suitable for asphalt or non-cement surfaces or painted surfaces.

Keep from freezing.

Does not replace need for proper concrete mix design, placement and finishing techniques, proper joint installation and/or proper curing of newly placed concrete.

PRECAUTIONS

READ MSDS PRIOR TO USING PRODUCT

- KEEP OUT OF REACH OF CHILDREN.
- Although this product is non-toxic and non-hazardous, it is alkali. 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-HARD® DENSIFIER 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-HARD® DENSIFIER will bond to most surfaces immediately, so wash off over spray with water and mild detergent.
- CAUTION: Surfaces wet with PENTRA-HARD® DENSIFIER may be slippery.

MANUFACTURER

Distributed by:
 Dayton Superior Corporation
 1125 Byers Road
 Miamisburg, OH 45342
 Customer Service: 888-977-9600
 Technical Services: 866-329-8724
 Website: www.daytonsuperior.com

PENTRA-HARD® DENSIFIER is a registered trademark of Advanced Concrete Technologies (ADVAN) and sub-licensed exclusively to Dayton Superior and Convergent Concrete Technologies LLC (Convergent). NANO-LITHIUM® and (NL) brand names and logos are registered trademarks of ADVAN and sub-licensed to Dayton Superior/Convergent, under a non exclusive co-brand/technology license. All rights reserved. PENTRA-HARD® products are protected by U.S. Patent #5,998,525 and/or pending patents under license in the United States and other countries by ADVAN.

WARRANTY

LIMITED WARRANTY NOTICE Every reasonable effort is made to apply Convergent Concrete exacting standards both in the manufacture of Pentra Hard products and in the information that Convergent Concrete issues concerning these products and their use. Convergent Concrete 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 Convergent Concrete control. Therefore, except for such replacement or refund, Convergent Concrete MAKES NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY, RESPECTING ITS PRODUCTS, and Convergent Concrete 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 Convergent Concrete products must bear the signature of the Convergent Concrete Research Director. This information and all further technical advice are based on Convergent Concrete's present knowledge and experience. However, Convergent Concrete 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, Convergent Concrete disclaims all WARRANTIES, WHETHER EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY. CONVERGENT CONCRETE SHALL NOT BE RESPONSIBLE FOR CONSEQUENTIAL, INDIRECT OR INCIDENTAL DAMAGES (INCLUDING LOSS OF PROFITS) OF ANY KIND. Convergent Concrete 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.

©2011 Dayton Superior / Convergent Concrete Technologies, LLC. All Rights Reserved.

