

## TECHNICAL DATA SHEET

### DESCRIPTION

PENTRA-HARD<sup>®</sup> 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<sup>™</sup> (DFS)** is recommended. For this system, PENTRA-HARD<sup>®</sup> FINISH is applied directly over the top of PENTRA-HARD<sup>®</sup> 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: 500-750 sq. ft./gal.  
(12.37– 18.41 sq m/L)

Existing Concrete: 400-650 sq. ft./gal.l (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<sup>®</sup> DENSIFIER does not flash-dry on the surface. Clean surface to remove any dirt, laitance, curing compounds or coatings that may prevent PENTRA-HARD<sup>®</sup> 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<sup>®</sup> 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:  
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