PENESEAL FH™

CONCRETE Ddensification FORMULA

PENETRON®

INTEGRAL CAPILLARY CONCRETE WATERPROOFING SYSTEMS

TOTAL CONCRETE PROTECTION™

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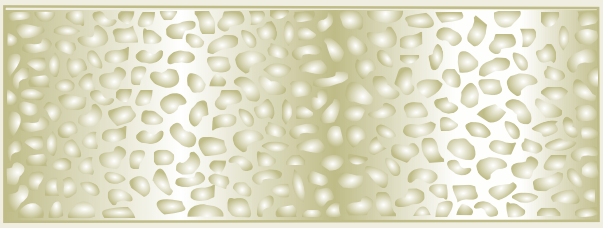
Peneseal FH is a transparent, chemically reactive, water-based sealer that penetrates concrete and masonry building materials, protecting, preserving and strengthening them permanently.

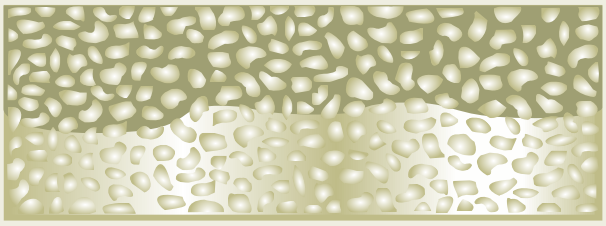
HOW IT WORKS

BEFORE TREATMENT



Pores and capillaries in the untreated concrete are subject to penetration by moisture, oils, acids, etc. and allow release of concrete dust.

AFTER TREATMENT



Peneseal FH penetrates into the concrete surface where it reacts with the free lime and alkali to form a solid mass that locks the pores and capillaries in the concrete, permanently sealing the concrete.

ADVANTAGES

- **IMPROVED, UNIFORM CURING:** Peneseal FH is an effective curing agent that controls hairline, early shrinkage and temperature cracking on new concrete, thus stabilizing the surface and effectively reducing crazing. Peneseal FH chemically seals the concrete, locking in moisture and allowing the concrete to cure more effectively and uniformly. Promoting a more complete hydration process enables the concrete to meet or even exceed its design strength.

- **LIFE-LONG SEALING:** Peneseal FH penetrates deep into the concrete actively locking the pores from within. Peneseal FH provides all concrete surfaces with a deep, permanent, solid life-long seal resulting in an easy to be cleaned and maintained surface.

- **EFFECTIVE HARDENING & IMPACT RESISTANCE:** Peneseal FH increases the strength and durability of concrete by hardening and strengthening the component parts of the concrete into one solid mass. Concrete is protected from damage and deterioration as Peneseal FH increases the density, toughness and hardness and substantially increases the abrasion and impact resistance.

- **CHEMICAL RESISTANCE:** One application of Peneseal FH provides chemical resistance to most organic acids, alkalis, salts, oils, greases and other surface contaminants.

- **DUSTPROOFING:** Peneseal FH provides a dust-free surface by chemically reacting with the salts in the concrete. Hardening of the concrete surface greatly reduces wear and thus the release of concrete dust. Subjected to abrasion resistance testing, Peneseal FH treated concrete has shown increased resistance to wear by as much as 80%. By creating a traffic-resistant and self-polishing floor surface Peneseal FH improves floor appearance with increased use.

- **SMOOTH SURFACE FINISHING:** Smooth steel troweled surfaces develop a permanent hard-shell, marble-like finish and sheen between 6 and 12 months after treatment. This sheen is caused by the hardening and sealing effects of Peneseal FH as well as abrasion from cleaning and use of the floor. As a permanent part of the concrete surface, the sheen will last the lifetime of the surface.

- **BONDING:** Peneseal FH treated concrete surfaces form the ideal surface to receive paints, caulking compounds, adhesives and floor coverings since the surface salts that are detrimental to proper bonding are eliminated during treatment. Peneseal FH can be coated with any type of covering when standard surface preparation guidelines are followed. The product does not contain silicone.

TREATABLE MATERIALS

- Concrete
- Heavy weight concrete block
- Mortar
- Plaster
- Stucco
- Terrazzo
- Exposed aggregate
- Any sand, aggregate, cement combination.

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APPLICATION

Methods of application: Spray or pour and broom to saturate the surface.

Tools needed: Low pressure sprayer, soft bristle broom or scrub brush, squeegee, water hose.

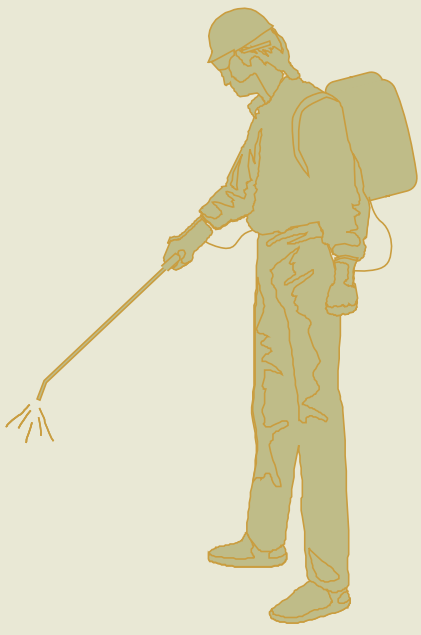
Surface preparation: Sweep all areas to be treated with a fine bristle broom or scrub brush, hose off with water and let dry, to remove surface dust, dirt and contamination. Remove all form oil and breaking compound residue from areas where forms have recently been detached. Peneseal FH can be applied to damp surfaces as long as puddle areas are swept away so that the Peneseal FH is not diluted before it is able to penetrate the surface.

FOR NEW CONCRETE:

Step 1: Apply Peneseal FH at approximately 200 square feet per gallon (5m² per liter) immediately following the finishing operation as soon as the surface is firm enough to walk on before hairline and temperature cracking begin. Keep the entire surface wet with Peneseal FH for 30 minutes.

Step 2: As Peneseal FH becomes slippery underfoot, lightly mist the surface with water. This will cause the material to lose its slipperiness.

Step 3: As Peneseal FH again becomes slippery and gel-like underfoot, thoroughly flush the entire surface with water and squeegee the surface completely dry to remove all surface alkali or Peneseal FH residue. On exterior broom finished surfaces, no flushing is required, but any remaining Peneseal FH must be squeegeed or broomed from the surface after 30-40 minutes.



EASY SPRAY APPLICATION

FOR OLD CONCRETE (ALL CURED SURFACES):

Step 1: Saturate the surface with Peneseal FH so that the entire surface is wet with Peneseal FH for 30 minutes.

Step 2: Option 1: If after 30-40 minutes the majority of Peneseal FH has been absorbed into the surface, broom or squeegee any excess material from all low spots and puddles so that all remaining Peneseal FH is entirely absorbed by the concrete or totally removed from the surface.

Step 2: Option 2: If after 30-40 minutes the majority of Peneseal FH is still on the surface, wait until it becomes slippery underfoot, then thoroughly flush the entire surface with clear water and squeegee completely dry to remove all Peneseal FH residue.

Coverage: Approximately 200 square feet per gallon (5m²/l). Coverage depends on the temperature and porosity of the concrete.

Thinners: None required for finished (non-concentrate) version. Clean all equipment with water only.

For concentrate version, mix Peneseal FH concentrate with water 1:1.

Number of applications required: One.

Duration of effectiveness: Permanent. The concrete becomes harder and better sealed the older it becomes.

Time requirement for curing, sealing and hardening: 60-90 days. Unlike surface coatings that wear away with use, Peneseal FH seals the concrete from within by permanently locking the pores, thus making the concrete itself the penetration barrier. This process is essentially complete within 90 days, but may continue at slower rates for up to one year.

NOTES

Do not apply Peneseal FH in the following cases:

- To seal lightweight block or other extremely porous masonry that contains actual holes and air pockets
- When temperature falls below 35˚F (1.7˚C)
- To areas previously treated with curing or sealing agents, unless these coatings have been removed by chemical or mechanical means
- Apply to colored concrete only after the slab is fully cured

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CAUTION

- Only apply with low-pressure sprayer. Do not use airless sprayers. Avoid inhalation
- Peneseal FH can cause eye irritation, skin irritation, respiratory irritation and irritation to stomach and esophagus if swallowed. Refer to MSDS
- In case of skin contact, wash with soap and water. Remove and wash contaminated clothing
- Dilute by drinking large amounts of water or milk if swallowed. Do not induce vomiting. Seek medical help
- Flush eyes with water for at least 20 minutes if contact occurs
- Use rubber gloves, water suitable protective clothing and chemical goggles. Wash after handling
- Avoid usage on glazed or finished surfaces such as glass, aluminum, etc. In case of contact flush immediately with water

DISTRIBUTOR

WARRANTY

ICS PENETRON INTERNATIONAL LTD. warrants that the products manufactured by it shall be free from material defects and will conform to formulation standards and contain all components in their proper proportion. Should any of the products be proven defective, the liability to ICS PENETRON INTERNATIONAL LTD. shall be limited to replacement of the material proven to be defective and shall in no case be liable otherwise or for incidental or consequential damages. ICS PENETRON INTERNATIONAL LTD. MAKES NO WARRANTY AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED. User shall determine the suitability of the product for his intended use and assume all risks and liability in connection therewith.

PACKING

Packaging: 19 L / 5 gal pail, 208 L / 55 gal drum, 1041 L / 275 gal drum.

Storage life: Indefinite. Agitate Pail or drum before using.

Color: Clear. Peneseal FH will not change the natural appearance of masonry or concrete. Where alkali, lime and other impurities are forced to the surface and the natural appearance is to be preserved, all treated surfaces must be flushed clean with clear water according to the manufacturer's instructions.

CONTACT DETAILS

PENETRON®

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