



# H&C® HYDRO-DEFEND®

## HB-100 and HB-150

### WATER REPELLENTS



#### PRODUCT DESCRIPTION

**H&C® HYDRO-DEFEND® HB-100 and HB-150 Water Repellents** are clear oligomeric siloxane water repellents designed to weatherproof old and new masonry against nature's destructive forces. They provide a long lasting, breathable barrier which exhibits superior resistance to water, airborne dust and dirt, salt, acid rain, efflorescence, alkali, freeze/thaw damage and spalling. They also minimize iron staining by helping to prevent reinforcing steel from corroding and deteriorating due to water intrusion.

#### FEATURES & BENEFITS

- Protects against damaging freeze/thaw cycles.
- Invisible no film finish.
- Reduces intrusion of water, de-icing salts and other contaminants.
- Adhesion promotor for any H&C® COLORTOP™ Solvent-Based Solid Color Concrete Sealer product.

#### RECOMMENDED USES

H&C HYDRO-DEFEND HB-100 and HB-150 Water Repellents is formulated for use on concrete and masonry surfaces including driveways, stadium supports, bridges, parking garages, stucco, concrete block, brick, patios, roof tile, walkways and cement floors.

#### ALTERNATE USES

For a color/seal system on extremely porous substrates, apply a flood coat of HB-100 or HB-150 then 2 coats of H&C COLORTOP Solvent-Based Solid Color Concrete Sealer.

#### COVERAGE RATES

Substrate	sq ft/gal
Porous concrete	100-150
**Split Face Block	50-75
Fluted block	25-50
Concrete block	75-125
Brick (clay)	100-150
Roof Tiles	75-125
Bridge decks	100-150
Steel Trowled Concrete	150-200
Precast Concrete	125-175

\*Coverage will vary depending on the porosity and texture of the substrate.

\*\* Lightweight Split Faced block may require a film-forming product due to its extreme porosity.

#### JOBSITE TEST SECTION

Due to the wide variety of substrates, preparation methods, application methods and environments, it is important to create a test sample.

#### LIMITATIONS

For use on BARE surfaces only. Not for use on marble, limestone, or other forms of calcium carbonate. Do not use below grade. HB-100 and HB-150 are not recommended for topcoating over film-forming paints, stains, or sealers.

#### SURFACE PREPARATION

**Horizontal Applications:** Allow new concrete to cure at least 28 days. Concrete surfaces should be able to absorb water. To test absorption, spray various sections of the surface to be stained with water. If the water does not absorb rapidly, then acid etch the surface using H&C® CONCRETEREADY® Etching Solution, following label instructions. After proper etching, the surface should feel like 120-grit sandpaper. If not, then etch again. Mechanical abrasion methods may be necessary to achieve proper profile. Do not apply the stain until all surfaces are porous. Allow all surfaces to dry at least 24 hours before staining. Prepared concrete must have a pH of 6 to 10. For surface preparation, refer to SSPC-SP13/NACE 6 or ICRI No.310.2.

**Vertical Applications:** All concrete must be porous, clean, dry and free of grease, oil and other contaminants. To spot clean, use H&C CONCRETEREADY Cleaner Degreaser, following label directions. If mold, mildew, or fungus is present, kill and remove with a solution of 1 cup household bleach to 1 gallon of water. In order to ensure adhesion of H&C HYDRO-DEFEND Water Repellents all paint or coating must be removed from the surface by mechanical abrasion.

**Repair:** For the best repair on vertical and horizontal concrete and masonry surfaces, use H&C CONCRETEREADY Quick Patch and Repair to fill low spots and spalled concrete. Please note that patching compounds will generally be visible through clear coatings.

#### TOOLS REQUIRED

- Synthetic roller (3/8- to ½-inch nap)
- Pump up sprayer (pressure 5 to 15 psi; tip Cone)
  - \*Backrolling recommended after spraying
- Eye Protection
- Respiratory Protection
- Gloves

## APPLICATION INSTRUCTIONS

Wait at least 24 hours after washing surface or after rain before applying H&C HYDRO-DEFEND HB-100 and HB-150 Water Repellents. Only apply under dry conditions. Air and concrete surface temperatures should be above 50°F and below 90°F for 24 hours following application.

**How to Apply:** Stir thoroughly before and during application. Do not shake or whip air into sealer, and do not reduce. Apply with a brush, roller, or pump up sprayer. When applying by roller, maintain a wet edge, going in the same direction during the entire application. The best results are achieved when working with low spraying pressures so the impregnating solution is applied in the form of droplets rather than a mist. Use the flood method. Vertical surfaces must be saturated, or “flooded”, allowing the material to run down 8 to 10 inches. Always work from the bottom up. Horizontal surfaces can be applied by the above methods or with conventional roller or brush providing enough material is used to allow it to stand for a few seconds before completely penetrating.

**Interruption of Work:** Upon drying, treated surfaces appear identical to untreated surfaces. It is possible areas could remain untreated if work is interrupted. It is advisable to stop application on a corner joint or any other obvious marker so the applicator can begin where application had previously ceased.

**Additional Coats:** One coat of H&C HYDRO-DEFEND HB-100 and HB-150 Water Repellents is normally sufficient. For extremely porous surfaces, apply second coat within 24 hours of first coat, working in second coat thoroughly. Because the flood method is recommended, surface texture will determine actual coverage. A sample brush out on the surface to be treated is recommended to make sure you achieve desired clarity. This will ensure proper penetration and application level.

## CLEANUP

Clean tools and any spills or spatters immediately using Xylene or Mineral Spirits. Clean hands immediately after use with a waterless hand cleaner. Follow manufacturer’s safety recommendations when using any solvent.

## MAINTENANCE

Clean surfaces coated with H&C HYDRO-DEFEND HB-100 HB-150 using a mixture of 3 parts water to 1 part H&C CONCRETEREADY Cleaner Degreaser.

## PHYSICAL PROPERTIES

Physical Properties and Characteristics		
Property	Test Method	Value
Dry Time (@ 77°F, 50% RH)	Dry-to-touch	3 hours
	Light foot traffic	4 hours
	Heavy traffic	72 hours
	Recoat	24 hours
Flash Point	ASTM D93, PMCC	499 deg. F.
VOC	EPA Method 24	732 g/L
HB-100 HB-150		711 g/L
Finish	ASTM D523	Flat
Volume Solids	ASTM D2832	6% ± 2%
HB-100 HB-150		9% ± 2%
Weight Solids	ASTM D 5095	8% ± 2%
HB-100 HB-150		12% ± 2%
Weight per Gallon	ASTM D147	6.7 lb
HB-100 HB-150		6.8 lb
National Cooperative Highway Research Program, 244 REPORT, Series II Test		
Water-Vapor Transmission	Minimum Required	
HB-100	100%	115.8%
HB-150		119.9%
Reduction in Chloride Ion Intrusion	Minimum Required	
HB-100	75%	86%
HB-150		91.8%
Reduction in Water Absorption	Minimum Required	
HB-100	75%	79.6%
HB-150		85.1%
Series IV Test Southern Climate	Minimum Required	
HB-100	75%	86%
HB-150		91.8%
Scaling Resistance	OPS B51.08.01	
HB-100	ASTM C672 50 Cycles	2
HB-150	Minimum Required:	2
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## ORDERING INFORMATION

Clear	Part Number/SMIS
1 gallon	50.140105-20/ 6509-22925
5 gallons	50.140155-20/ 6509-22933

## TECHNICAL SERVICES

The information and recommendations set forth in this product data sheet are based on tests conducted by or on behalf of H&C Products Group and The Sherwin-Williams® Company. Such information and recommendations set forth herein are subject to change and pertain to the product offered at the time of publication. Consult your H&C or Sherwin-Williams representative to obtain the most recent product data sheet.

For technical assistance, call 1-800-867-8246 or visit [www.hconcrete.com](http://www.hconcrete.com).

## **CAUTION**

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**CAUTION** contains ALIPHATIC HYDROCARBONS.

Contents are COMBUSTIBLE. Keep away from heat and open flame. VAPOR HARMFUL. Use only with adequate ventilation. To avoid overexposure, open windows and doors or use other means to ensure fresh air entry during application and drying. If you experience eye watering, headaches, or dizziness, increase fresh air, or wear respiratory protection (NIOSH approved) or leave the area. Avoid contact with eyes and skin. Wash hands after using. Keep container closed when not in use. Do not transfer contents to other containers for storage.

**FIRST AID:** In case of eye contact, flush thoroughly with large amounts of water for 15 minutes and get medical attention. For skin contact, wash thoroughly with soap and water. In case of respiratory difficulty, provide fresh air and call physician. If swallowed do not induce vomiting. Call Poison Control Center, hospital emergency room, or physician immediately.

### **DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE.**

Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

**DO NOT TAKE INTERNALLY. KEEP OUT OF THE REACH OF CHILDREN.**

## **LIMITED WARRANTY**

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Seller's and manufacturer's only obligations shall be to replace such quantity of product proved to be defective. Neither seller nor manufacturer shall be liable for any injury, loss or damage, direct or consequential, arising from the applicator's inability to use the product for his/her intended use. The user assumes all risk and liability.