

PRODUCT DATA

7 07 19 16 **Water Repellents**

HYDROZO® 100

High-performance, clear,
100% silane penetrating sealer

Description

Hydrozo® 100 is a clear, breathable, high-performance, 100% silane, VOC compliant, water repellent sealer. It is used on horizontal concrete and vertical concrete and masonry and does not harm adjacent metal, glass, wood or painted surfaces - which do not require cleaning after application.* It penetrates deeply, sealing out water, chloride ions, and acids, preventing damage from freeze/thaw cycles.

Yield

250 – 400 ft²/gallon (6 – 10 m²/L)

Coverage may vary greatly with porosity of the substrate; extreme porous substrate may require two coats. Perform test panels to ensure desired results and coverage rates.

Packaging

5 gallon (18.9 L) pails

55 gallon (208 L) drums

Color

Clear

Shelf Life

2 years when properly stored.

Storage

Store in unopened containers in a clean, dry area between 35 and 110° F (2 and 43° C).

Features

- No masking of windows necessary*
- No residue*
- Highest degree of performance
- Breathable
- 100% silane
- Superior water repellence
- Abrasion resistant

Benefits

- Requires no cleaning after application
- Will not harm glass windows, metal frames, or painted surfaces
- Extends service life of structures
- Allows interior moisture to escape without damaging sealer
- Protects against damage from moisture intrusion and chloride ion penetration
- Penetrates deeply and chemically reacts within the pores of concrete to provide long-lasting protection
- Provides long-lasting protection to horizontal substrates subject to traffic, such as bridge decks and highway surfaces

Where to Use

APPLICATION

- Traffic-bearing concrete substrates
- Bridge decks and substructures
- Concrete highway surfaces
- Ramps and barrier rails
- Parking garages
- Buildings
- Stadiums
- Cooling towers
- Many other reinforced concrete structures

LOCATION

- Horizontal and vertical
- Exterior or interior
- Above grade

SUBSTRATE

- New and existing concrete
- Brick
- Stucco

How to Apply

Surface Preparation

1. Verify substrate has properly cured. Concrete should obtain 80% of design strength, typically achieved within 14 – 28 days.
2. Clean all surfaces of all sand, surface dust and dirt, oil, grease, chemical films and coatings, and other contaminants prior to application. Use waterblast, sandblast, or shotblast as necessary to achieve the desired surface condition. Repoint any loose, disintegrated, or cracked mortar and allow a minimum of 72 hours drying time before application.
3. Air, material and surface temperatures should be 40° F (4° C) or higher during application. Do not apply sealer when temperatures are expected to fall below 20° F (-7° C) within 12 hours or when rain is expected within 4 hours following application. Hydrozo® 100 may be applied to slightly damp surfaces.
4. Crack control, caulking, patching, and expansion joint sealants can be installed before or after application of the sealer. Allow adequate curing time following sealant-manufacturer's recommendations. Allowing material to pond on silicone sealant will cause silicone to swell.

*NOTE: Hydrozo 100 manufactured prior to March 1, 2010 will require overspray protection during application for windows, metal frames or painted surfaces which would require cleaning otherwise. Please contact customer service, technical service or sales representation to ensure that material intended for vertical applications where windows are present is manufactured after March 1, 2010.



Technical Data

Composition

Hydrozo® 100 is 100% silane by weight.

Compliances

- Alberta DOT, Type 1c

Typical Properties

PROPERTY	VALUE
Penetration , in (mm), average depth, depending upon substrate	0.35 (9)
Surface appearance after application	Unchanged

Test Data

PROPERTY	RESULTS	TEST METHODS
Flash point , ° F (° C)	165 (62.7)	SETA
Water repellency after heavy abrasion , %	83.5 – exceeds criteria	Alberta DOT penetrating sealer, Type 1c (0.35 w/c ratio)
Water weight gain , % reduction		NCHRP 244 Series II-cube test
250 ft ² /gal (6.1 m ² /L)	90	
400 ft ² /gal (9.8 m ² /L)	85	
Absorbed chloride , % reduction		NCHRP 244 Series II-cube test
250 ft ² /gal (6.1 m ² /L)	96	
400 ft ² /gal (9.8 m ² /L)	87	
Absorbed chloride , % reduction	98 – exceeds criteria	NCHRP 244 Series IV - Southern climate
Skid Resistance , BPN		
Broomed Concrete		
Untreated	90	ASTM E 303
Treated	90	

Test results are averages obtained under laboratory conditions. Reasonable variations can be expected.

Application

1. Test small area of surface (generally a 5 by 5 ft [1.5 by 1.5 m] section) before starting general application of any clear penetrating sealer to ensure desired results and coverage rates. Allow 5 – 7 days for the product to fully react before evaluating. Refer to Appendix HY-3: Test Area Application.
2. Stir material thoroughly before and during application.
3. For horizontal surfaces, apply with a flooding action. Sealer may be applied with low-pressure spray or roller, followed by brooming for even distribution.
4. For vertical surfaces, apply by low-pressure, non-atomizing sprayer. Apply from the bottom up for uniform distribution of the sealer.

Apply to saturation, with a controlled rundown of 8" (20 cm). In certain cases, a mist coat before general application will help break the surface tension and assure maximum penetration of saturation coat.

Drying Time

Typical drying time for Hydrozo® 100 is 4 hours at 70° F (21° C) and 50% relative humidity. Cooler temperatures or higher relative humidity can extend the drying time.

Clean Up

Clean equipment with mineral spirits or xylene.

For Best Performance

- Do not apply during inclement weather or when inclement weather is anticipated within 12 hours.
- To prevent damage to nearby shrubbery and landscaping, cover or protect with drop cloth.
- Protect asphalt-based products such as roofing materials or plastic products from overspray.
- Caution should be taken with specialty coated glass. Small areas should be tested prior to application to ensure the product does not discolor the coating. Plastic windows will turn opaque when sprayed with this products.
- Hydrozo® 100 will not inhibit water penetration through unsound or cracked surfaces or surfaces with defective flashing, caulking, or structural waterproofing.
- Variations in the texture and porosity of the substrate will affect the coverage and performance of the product.
- Paint line striping after the application of Hydrozo® 100.
- Make certain the most current versions of product data sheet and MSDS are being used; call Customer Service (1-800-433-9517) to verify the most current versions.
- Proper application is the responsibility of the user. Field visits by BASF personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite.

Health and Safety

HYDROZO® 100

Warning

Hydrozo® 100 contains octyltriethoxysilane and ethanol.

Risks

Combustible liquid and vapor. May cause skin, eye or respiratory irritation. May cause dermatitis and allergic responses. Potential skin and/or respiratory sensitizer. Ingestion may cause irritation. Reports associate repeated or prolonged occupational overexposure to solvents with permanent brain, nervous system, liver and kidney damage. INTENTIONAL MISUSE BY DELIBERATELY INHALING THE CONTENTS MAY BE HARMFUL OR FATAL.

Precautions

KEEP OUT OF THE REACH OF CHILDREN. KEEP AWAY FROM HEAT, FLAME AND SOURCES OF IGNITION. Keep container closed. Empty containers may contain explosive vapors or hazardous residues. Use only with adequate ventilation. Prevent contact with skin, eyes and clothing. Wash thoroughly after handling. Avoid breathing vapors. DO NOT take internally. Use impervious gloves, eye protection and if the TLV is exceeded or used in a poorly ventilated area, use NIOSH/MSHA approved respiratory protection in accordance with applicable federal, state and local regulations. All label warnings must be observed until container is commercially cleaned or reconditioned.

First Aid

In case of eye contact, flush thoroughly with water for at least 15 minutes. SEEK IMMEDIATE MEDICAL ATTENTION. In case of skin contact, wash affected areas with soap and water. If irritation persists, SEEK MEDICAL ATTENTION. Remove and wash contaminated clothing. If inhalation causes physical discomfort, remove to fresh air. If discomfort persists or any breathing difficulty occurs, or if swallowed, SEEK IMMEDIATE MEDICAL ATTENTION.

Refer to Material Safety Data Sheet (MSDS) for further information.

Proposition 65

This product does contains material listed by the state of California as known to cause cancer, birth defects or other reproductive harm.

VOC Content

2.92 lbs/gal or 350 g/L, less water and exempt solvents.

**For medical emergencies only,
call ChemTrec (1-800-424-9300).**

