

MasterProtect® H 440 HZ

Breathable, solvent-based, silane penetrating water-repellent sealer

FORMERLY HYDROZO® SILANE 40 VOC

PACKAGING

- 5 gallon (18.9 L) pails
- 53 gallon (201 L) drums

COLOR

Clear

YIELD

Poured in place and precast concrete:
125–225 ft²/gal (3.1–5.5 m²/L)

Coverage may vary greatly with porosity of the substrate; extremely porous substrates may require 2 coats. Perform test panels to ensure desired results and coverage rates.

STORAGE

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

SHELF LIFE

18 months when properly stored

VOC CONTENT

Less than 600 g/L less water and exempt solvents

DESCRIPTION

MasterProtect H 440 HZ is a breathable, solvent-based, water repellent sealer containing 40% alkylalkoxysilane.

PRODUCT HIGHLIGHTS

- 40% silane
- Excellent depth of penetration
- Water repellent which helps to protect from damage caused by chloride intrusion, extends life of structures
- Solvent based, excellent for cold-weather applications
- Breathability allows interior moisture to escape without damaging sealer
- Does not alter surface appearance
- Surface sealer helps reduce efflorescence, atmospheric staining, and mildew

APPLICATIONS

- Horizontal
- Exterior
- Above grade
- Parking decks
- Bridges
- Stadiums

SUBSTRATES

- Concrete
 - precast
 - prestressed
 - poured in place

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. Power wash, sandblast, or shotblast as necessary to achieve the desired surface condition.
3. Air, substrate, and material temperatures should be 20° F (-7° C) and rising at the time of the application. Substrate must be frost free. 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. Maximum application temperature is 95° F (35° C). May be applied to slightly damp surfaces.
4. Caulking and sealant work may be done before or after the application of the sealer. Allow sealant to cure fully cured before application of Master Protect H 440 HZ. Following the application, remove excess product that might pond on a concave sealant joint.

Technical Data

Composition

MasterProtect H 440 HZ is an alcohol-based alkylalkoxysilane product.

Typical Properties

PROPERTY	VALUE
Active alkylalkoxysilane content, % by weight	> 40
Penetration, in (mm), average depth, depending upon substrate	0.20 (5)
Surface appearance after application	Unchanged

Test Data

PROPERTY	RESULTS	TEST METHOD
Flash point, ° F (° C)	53 (12)	SETA, IPA
Waterproofing after abrasion, % at 225 ft²/gal (5.6 m²/L)	88.4	Alberta Transportation and Utilities Type 1B
Resistance to chloride, lb/ycd³ Criteria of 1.5 at 1/2" Criteria of 0.75 at 1"	< 0.2 < 0.00	
Water weight gain, % reduction, at 200 ft²/gal (5 m²/L)	86 – exceeds criteria	NCHRP 244 Series II-cube test
Absorbed chloride, % reduction, at 200 ft²/gal (5 m²/L)	92 – exceeds criteria	NCHRP 244 Series II-cube test
Absorbed chloride, % reduction, at 200 ft²/gal (5 m²/L)	99 – exceeds criteria	NCHRP 244 Series IV - Southern climate
Moisture-vapor transmission rate, %	102	OHD-L-35

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

APPLICATION

1. Test a small area of the 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 performance results, aesthetics and coverage rates. Allow 5–7 days for the product to fully react before evaluating. Contact Technical Service for details.
2. Stir material thoroughly before and during application.
3. Apply to saturation using low-pressure non-atomizing spray or pouring, followed by a squeegee or a broom for even distribution.

DRYING TIME

Typical drying time for MasterProtect H 440 HZ 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 xylene or MasterSeal 990.

FOR BEST PERFORMANCE

- Do not apply during inclement weather or when inclement weather is anticipated within 12 hours.
- Protect asphalt-based products, such as roofing materials, plastic products, shrubbery, and plant life from overspray.
- Take caution with specially coated glass. Test small areas before application to ensure the product does not discolor the coating.
- To prevent damage to nearby shrubbery and landscaping, cover or protect with drop cloth.
- Paint line striping after the application of the sealer.
- Plastic windows will turn opaque when sprayed with this product.
- Variations in the texture and porosity of the substrate will affect the coverage and performance of the product.
- MasterProtect H 440 HZ will not inhibit water penetration through unsound or cracked surfaces, or surfaces with defective flashing, caulking, or structural waterproofing.
- Make certain the most current versions of product data sheet and SDS are being used; visit www.master-builders-solutions.com/en-us to verify the most current version.
- Proper application is the responsibility of the user. Field visits by Master Builders Solutions personnel are for the purpose of making technical recommendations only and are not for supervising or providing quality control on the jobsite.

HEALTH, SAFETY AND ENVIRONMENTAL

Read, understand and follow all Safety Data Sheets and product label information for this product prior to use. The SDS can be obtained by visiting www.master-builders-solutions.com/en-us, e-mailing your request to mbsbscst@mbcc-group.com or calling 1(800)433-9517. Use only as directed.

IN CASE OF EMERGENCY: Call CHEMTEL +1 (800) 255-3924 or if outside the US or Canada, +1 (813) 248-0585.

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