

PRODUCT DATA SHEET

Sikagard[®]-440 HZ

(formerly MProtect H 440HZ)

BREATHABLE, SOLVENT-BASED, SILANE PENETRATING WATER-REPELLENT SEALER

PRODUCT DESCRIPTION

Sikagard[®]-440 HZ is a breathable, solvent-based, water-repellent sealer containing 40% alkylalkoxysilane.

USES

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

Substrates

Concrete:

- precast
- prestressed
- poured in place

CHARACTERISTICS / ADVANTAGES

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

PRODUCT INFORMATION

Chemical Base	40% alkylalkoxysilane
Active content	Active alkylalkoxysilane content > 40% by weight
Packaging	5 gallon (18.9 L) pails 53 gallon (201 L) drums
Shelf Life	18 months when properly stored
Storage Conditions	Store in unopened containers in a clean, dry area between 35 and 110° F (2 and 43° C).
Color	Clear
Appearance / Color	Surface appearance after application: Unchanged

TECHNICAL INFORMATION

Abrasion Resistance	88.4%, at 225 ft ² /gal (5.6 m ² /L)	(Alberta Transportation and Utilities Type 1B)				
Penetration Depth	0.20 in (5 mm) average depth, depending upon substrate					
Water Absorption	Water weight gain 86% reduction – exceeds criteria at ft ² /gal (5 m ² /L) (NCHRP 244 Series II-cube test)					
Water Vapor Transmission	102%	(OHD-L-35)				
Rapid Chloride Permeability	<table border="1"> <tr> <td>Criteria of 1.5 at 1/2"</td> <td>< 0.2 lb/yd³</td> </tr> <tr> <td>Criteria of 0.75 at 1"</td> <td>< 0.00 lb/yd³</td> </tr> </table>		Criteria of 1.5 at 1/2"	< 0.2 lb/yd ³	Criteria of 0.75 at 1"	< 0.00 lb/yd ³
Criteria of 1.5 at 1/2"	< 0.2 lb/yd ³					
Criteria of 0.75 at 1"	< 0.00 lb/yd ³					
	Absorbed Chloride , % reduction, at 200 ft ² /gal (5 m ² /L)					
	92% reduction – exceeds criteria	(NCHRP 244 Series II-cube test)				
	99% reduction – exceeds criteria	(NCHRP 244 Series IV - Southern climate)				

APPLICATION INFORMATION

Coverage	Poured in place and precast concrete: 125–225 ft ² /gal (3.1–5.5 m ² /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.
Drying Time	Typical drying time for Sikagard®-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.

BASIS OF PRODUCT DATA

Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions and curing conditions.

ENVIRONMENTAL, HEALTH AND SAFETY

For further information and advice regarding transportation, handling, storage and disposal of chemical products, user should refer to the actual Safety Data Sheets containing physical, environmental, toxicological and other safety related data. User must read the current actual Safety Data Sheets before using any products. In case of an emergency, call CHEMTREC at 1-800-424-9300, International 703-527-3887.

APPLICATION INSTRUCTIONS

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.
- Sikagard®-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.
- Proper application is the responsibility of the user. Field visits by Sika personnel are for the purpose of making technical recommendations only and are not for supervising.

SUBSTRATE PREPARATION

- Verify substrate has properly cured. Concrete should obtain 80% of design strength, typically achieved within 14–28 days.
- 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.

- Air, substrate, and material temperatures should be 20° F (-7° C) and rising at the time of the application. The 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.
- Caulking and sealant work may be done before or after the application of the sealer. Allow the sealant to cure fully cured before application of Sikagard®-440 HZ. Following the application, remove the excess product that might pond on a concave sealant joint.

APPLICATION

- Test a small area of the surface (generally a 5 by 5 ft [1.5 by 1.5 m] section) before starting the 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 evaluation. Contact Technical Service for details.
- Stir material thoroughly before and during application.
- Apply to saturation using low-pressure non-atomizing spray or pouring, followed by a squeegee or a broom for even distribution.

CLEANING OF TOOLS

Clean equipment with xylene or SikaSwell®-990.

LEGAL DISCLAIMER

- KEEP CONTAINER TIGHTLY CLOSED
- KEEP OUT OF REACH OF CHILDREN
- NOT FOR INTERNAL CONSUMPTION
- FOR INDUSTRIAL USE ONLY
- FOR PROFESSIONAL USE ONLY

Prior to each use of any product of Sika Corporation, its subsidiaries or affiliates (“SIKA”), the user must always read and follow the warnings and instructions on the product’s most current product label, Product Data Sheet and Safety Data Sheet which are available at usa.sika.com or by calling SIKA’s Technical Service Department at 1-800-933-7452. Nothing contained in any SIKA literature or materials relieves the user of the obligation to read and follow the warnings and instructions for each SIKA product as set forth in the current product label, Product Data Sheet and Safety Data Sheet prior to use of the SIKA product.

SIKA warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties on the current Product Data Sheet if used as directed within the product’s shelf life. User determines suitability of product for intended use and assumes all risks. User’s and/or buyer’s sole remedy shall be limited to the purchase price or replacement of this product exclusive of any labor costs. **NO OTHER WARRANTIES EXPRESS OR IMPLIED SHALL APPLY INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SIKA SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES. SIKA SHALL NOT BE RESPONSIBLE FOR THE USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT OR ANY OTHER INTELLECTUAL PROPERTY RIGHTS HELD BY OTHERS.**

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Product Data Sheet

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