



B.F. Day Elementary School

Landmarks Review of Concrete Waterproofing
January 28, 2026

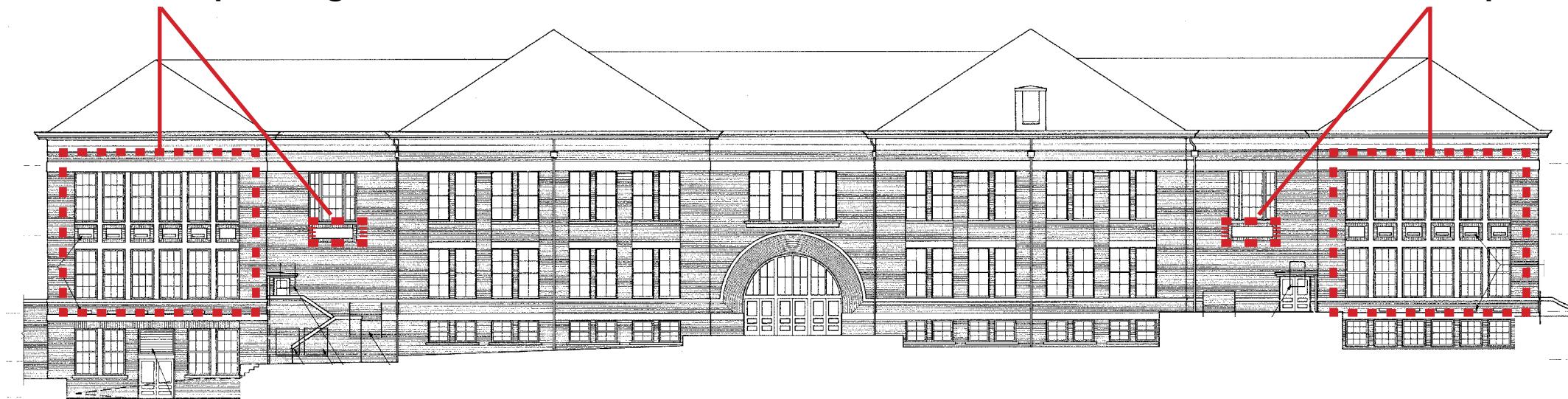
Exterior Elevations

Photos of Existing Conditions

Specification - Waterproofing of Cast-in-Place Concrete

Concrete Waterproofing Product Data Sheets

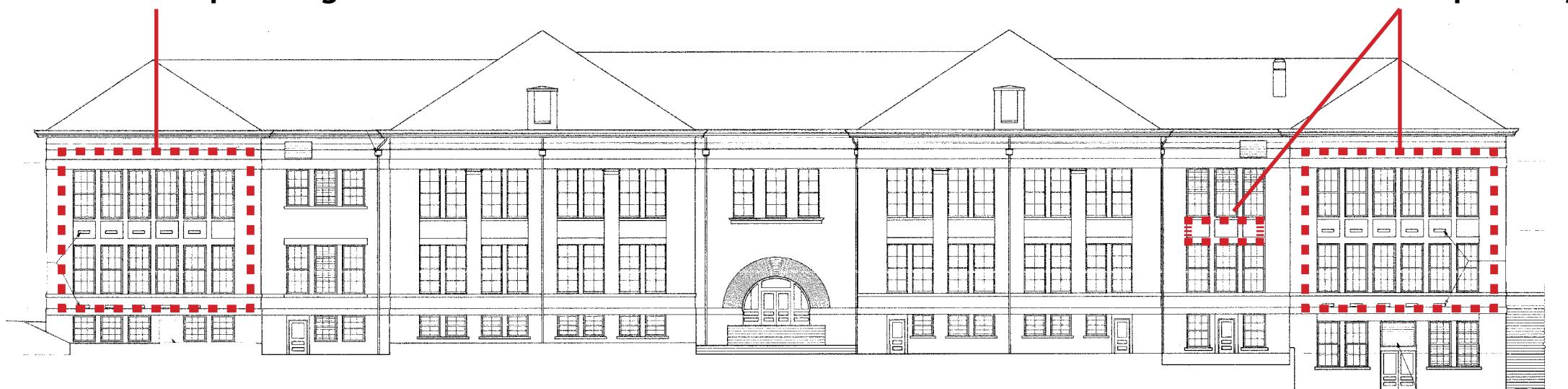
**Area of
Concrete Waterproofing**



**Area of
Concrete Waterproofing**

East Elevation

**Area of
Concrete Waterproofing**



**Area of
Concrete Waterproofing**

West Elevation

PHOTOS OF EXISTING CONDITIONS



Existing Column Example



Proposed
Sika Color
Sample

Existing
Concrete



Rendering of Proposed Coating

Concrete Weatherproofing Legend

PIGMENTED CONCRETE WATERPROOFING



2 East Elevation

1/8" = 1'-0"



1 West Elevation

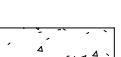
1/8" = 1'-0"

SHEET REVISIONS	BUILDING DEPARTMENTS STAMP	CONSULTANT	STAMP	ARCHITECT	PHASE	SHEET TITLE
06/12/2025 Addendum 3 07/10/2025 Addendum 6				 Laura R. Maman 10419 REGISTERED ARCHITECT 118 North 35th St. Suite 200 Seattle, Washington 98103 Tel: 206 634 0177 Project #2328	Landmarks Review of Concrete Waterproofing	EXTERIOR ELEVATIONS
					DATE	
					11/26/2025	A3.01A

Seattle Public Schools
BF Day Elementary School
Window Replacement

NOTE: DRAWING SET SCALED FOR 30x42 SHEET

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1 Enlarged West Elevation - Concrete Repairs Northwest

1/4" = 1'-0"

2 Enlarged West Elevation - Concrete Repairs Southwest

1/4" = 1'-0"

SHEET REVISIONS	BUILDING DEPARTMENTS STAMP	CONSULTANT	STAMP	ARCHITECT	PHASE	SHEET TITLE
05/20/2025 Addendum 1				 Miller Hayashi Architects PLLC 118 North 39th St. Suite 200 Seattle, Washington 98103 Tel: 206 634 0177 Project #2328	Landmarks Review of Concrete Waterproofing	ENLARGED ELEVATIONS - CONCRETE REPAIR
					DATE	11/26/2025
						A3.04A

Seattle Public Schools
BF Day Elementary School
Window Replacement

NOTE: DRAWING SET SCALED FOR 30x42 SHEET

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PART 1 - GENERAL**1.1 SUMMARY**

- A. Section Includes: Waterproofing of exterior concrete surfaces.
- B. Related Sections:
 - 1. 030130 - Repair Of Cast-In-Place Concrete.
- C. Drawings, the provisions of the Agreement, the General Conditions, and Division 1 specification sections apply to all work of this Section.
- D. Substitutions: Substitute products will be considered only under the terms and conditions of Section 016310. Proposed substitutions shall include without limitation product technical data, compatibility, verification of equivalency, supportive testing, reason for substitution.

1.2 SUBMITTALS

- A. Make submittals in accordance with Section 013300.
- B. Product Data: Submit product data.
- C. Manufacturer and applicator qualifications.
- D. Applicator references.

1.3 QUALITY ASSURANCE

- A. Qualifications:
 - 1. Manufacturer Qualifications: Company with minimum 15 years of experience in manufacturing of specified products.
 - 2. Applicator Qualifications:
 - a. Applicator with minimum of 3 years' experience in application of specified products on projects of similar size and scope and is acceptable to product manufacturer.
 - b. Successful completion of a minimum of 5 projects of similar size and complexity to specified work.
- B. Field Sample:
 - 1. Install at project site or another pre-selected area of the building, minimum 1 feet by 4 feet, using specified material and application.
 - 2. Apply material in accordance with manufacturer's written application instructions.
 - 3. Manufacturer's representative or designated representative will review technical aspects; surface preparation, repair and workmanship.
 - 4. Field sample will be standard for judging workmanship on remainder of project.
 - 5. Maintain field sample during construction for workmanship comparison.
 - 6. Do not alter, move, or destroy field sample until work is completed and approved by architect/engineer.
 - 7. Obtain architect/engineer written approval of field sample before start of material application, including approval of aesthetics, color, texture and appearance.
 - 8. Perform adhesion test in accordance with ASTM D3359, Method A. Minimum adhesion rating of 4A required on 0 to 5 scale.

1.4 PROJECT CONDITIONS

- A. In accordance with the manufacturer's recommendations.
- B. Provide adequate ventilation.

PART 2 - PRODUCTS**2.1 CONCRETE WATERPROOFING**

- A. Water-based, high-build, 100 percent acrylic, waterproof coating.
 - 1. Basis of Design: Sika "Thorocoat -400" by Sika.

- B. Sika Thorocoat 400 Coarse:
 - 1. Density, ASTM D1475: 13.2 to 14.2 lbs per gal (1.58 to 1.70 kg/L).
 - 2. Solids Content, ASTM D5201:
 - a. By Weight: 67.0 – 71.6 percent.
 - b. By Volume: 50 percent.
 - 3. Viscosity, ASTM D562: 117 to 125 KU.
 - 4. VOC Content, ASTM D3960: 0.59 lbs per gal (70 g/L), less water and exempt solvents.
- C. Approximate Coverage Rate: 75 to 100 sq ft per gal (1.84 to 2.46 m²/L).
- D. Wet Film Thickness (WFT):
 - 1. Coarse: 16 to 22 mils (406 to 559 microns).
- E. Dry Film Thickness (DFT):
 - 1. Coarse: 8 to 11 mils (203 to 279 microns).
- F. Colors: As selected by Architect from manufacturer's full line.

2.2 PRIMER

- A. Primer as recommended by manufacturer for conditions.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Prior to starting work, carefully inspect installed work of other trades and verify that such work is complete to the point where work of this Section may properly commence. Notify the Architect in writing of conditions detrimental to the proper and timely completion of the work.
- B. Do not begin installation until all unsatisfactory conditions are resolved. Beginning work constitutes acceptance of site conditions and responsibility for defective installation caused by prior observable conditions.

3.2 SURFACE PREPARATION

- A. Protection: Protect adjacent work areas and finish surfaces from damage during coating application.
- B. Prepare surfaces in accordance with manufacturer's instructions.
- C. Ensure that substrate is sound, clean, dry, and free of dust, dirt, oils, grease, laitance, efflorescence, mildew, fungus, biological residues, and other contaminants that could prevent proper adhesion.
- D. Ensure concrete substrates have a minimum 28-day cure and are free of bond-inhibiting contaminants.
- E. Clean surface to achieve texture similar to medium-grit sandpaper.
- F. High-pressure power wash surface to create a profile of SP 3, per ICRI Guide 310.2.
- G. Repair holes and spalled and damaged concrete with repair materials approved by coating manufacturer.
- H. Remove protruding concrete accessories and smooth out irregularities.
- I. When chemical cleaners are used, neutralize compounds and fully rinse surface with clean water. Allow surface to dry before proceeding.
- J. Remove blisters or delaminated areas and sand edges to smooth rough areas and provide transition to existing paint areas.
- K. Treat cracks greater than 1/32 inch with knife-grade or brush-grade patching compound.
- L. Treat cracks greater than 1/4 inch as expansion joints and fill with sealant approved by coating manufacturer.
- M. Prepare and treat cracks in accordance with manufacturer's instructions.

3.3 PRIMING

- A. Apply primer in accordance with manufacturer's instructions.

3.4 MIXING

- A. Mix coating in accordance with manufacturer's instructions to ensure uniform color and aggregate disbursement and to minimize air entrapment.
- B. In multi-pail applications, mix contents of each new pail into partially used pail to ensure color consistency and smooth transitions from pail to pail.

3.5 APPLICATION

- A. Apply coating in accordance with manufacturer's instructions.
- B. Apply coating as a two-coat system.
- C. Spray-apply both coats using a heavy-duty sprayer designed for the application of coatings that contain sand particles. First coat shall be back-rolled or back-brushed to achieve consistent coverage.
- D. Maintain proper uniform wet-film thickness during application to ensure performance characteristics desired.
- E. Apply coating using consistent application techniques to achieve uniform color and texture.

3.6 PROTECTION

- A. Protect applied coating from damage during construction.
- B. Protect all adjacent existing materials. Prevent historic building materials from over-spray.

END OF SECTION

PRODUCT DATA SHEET

Sika Thorocoat®-400

(formerly MProtect HB 400)

WATER-BASED, HIGH-BUILD, 100% ACRYLIC WATERPROOF COATING

PRODUCT DESCRIPTION

Sika Thorocoat®-400 is a water-based, high-build, 100% acrylic waterproof coating for above-grade concrete, masonry, stucco, and EIFS.

USES

- Exterior
- Vertical and overhead surfaces
- Above-grade
- Protecting and waterproofing

Substrates

- Concrete
- Masonry
- Cement plaster
- Stucco
- EIFS
- Existing Coatings

CHARACTERISTICS / ADVANTAGES

- Available in a broad range of colors and textures for design versatility
- Resists wind-driven rain, helps prevent water penetration into the substrate
- Breathable to allow water vapor to escape
- Excellent adhesion, bonds securely to substrate for long-term durability
- UV resistance provides excellent color retention for a long-lasting attractive finish
- Excellent hiding power
- Textured formulations help improve the aesthetics of irregular substrates
- Effective carbon dioxide diffusion barrier protects embedded steel from corrosion
- Freeze/thaw resistant, suitable for cold climates
- Low VOC content for broad compliance across all regions

APPROVALS / STANDARDS

- Alberta Transportation - Type 3 sealer

PRODUCT INFORMATION

Packaging	5 gallon (18.9 L) pails	
Shelf Life	18 months when properly stored	
Storage Conditions	Store in unopened containers in a clean, dry area. Keep from freezing	
Density	11.4–12.4 lbs/gal (1.37–1.49 kg/L)	(ASTM D 1475)
Flash Point	> 200 °F (93 °C)	(ASTM D 56 Tag Closed Tester)
Solid content by mass	56.2%	(ASTM D 5201)

Solid content by volume	38%	(ASTM D 5201)
Viscosity	102-110 KU	(ASTM D 562 (Stormer))

TECHNICAL INFORMATION

Impact Strength	Passed at 30 in-lbs	(ASTM D 2794)
Low Temperature Bend	No cracking, 1" mandrel	(ASTM D 522)
Resistance to wind-driven rain	Meets requirement – no water penetration	(TT-C-555B)
Permeability to Water Vapor	23 perms	(ASTM D 1653)
Lap Shear Strength	R (equivalent air-layer thickness), ft (m)	1,318 (402) (PR EN 1062-6)
	Sc (equivalent concrete thickness), in (cm)	39 (100)
Water resistance	Meets requirement: no blistering, loss of adhesion, or discoloration	(TT-C-555B)
Microbiological Resistance	Fungus Resistance No growth, it meets the requirement	(ASTM D 3273)
	Mildew Resistance Aspergillus oryzae, 7 days	No growth (Fed Spec. TT-P-29 (Fed. Std. 141, Method 6152 and 6271.1))
	Aspergillus niger, 21 days	No growth
	Algae Resistance No growth	(ASTM D 5589)
Resistance to Weathering	Accelerated Weathering Passes, 5,000 hours	(ASTM G 23, Type D)
	Chalking Passes, 5,000 hours	(ASTM D 4214)
	Sand Abrasion Resistance Passed at 3,000 L	(ASTM D 968 Method A)
Natural Weathering	Dirt Pick-Up 92.02%; passed after 6 months of exposure	(ASTM D 3719)
Light fastness of colour pigments	Passes, 5,000 hours	(ASTM D 1729)
Freeze-Thaw Stability	Passed, 50 cycles	(DOT Method A and B)
Salt spray resistance	Passed, 300 hrs	(ASTM B 117)
Reaction to Fire	Flame Spread Smoke Fuel Contribution	1 4 7 (ASTM E 84)

APPLICATION INFORMATION

Coverage	Texture	Rate, ft ² /gal/coat (m ² /L)	Wet Film, mils (mm)	Dry Film, mils (mm)
	Smooth Recoat	75–125 (1.84–2.45)	22–13 (0.559–0.33)	8–5 (0.203–0.127)
	Smooth	75–100 (1.84–2.46)	22–16 (0.559–0.406)	8–6 (0.203–0.152)

*Coverages are estimates for smooth, dense concrete. Coverages will vary on porous or textured surfaces.

Drying Time	Times assume 70 °F (21 °C) and 50% relative humidity. To touch: 1–2 hours To recoat: minimum of 6 hours Lower surface or air temperatures and higher relative humidity will extend the drying time.
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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

- Do not apply when the substrate or ambient temperature is 40 °F (4 °C) or below or is expected to fall below 40 °F (4 °C) within 24 hours after application.
- Do not apply if rain is expected within 24 hours of application.
- Not for immersion service.
- Apply a 4 by 4 ft (1.2 by 1.2 m) test area to verify acceptable color, texture, and adhesion before proceeding with any project. The test method for measuring adhesion is ASTM D 3359, Measuring Adhesion by Tape Method A. On the 0–5 scale, a minimum adhesion rating of 4A is required.
- Color formulas containing organic colorants are susceptible to fading in exterior applications. Refer to Technical Support for guidance.
- Do not thin the material.
- For professional use only; not for sale to or use by the general public.
- Make certain the most current versions of the product data sheet and SDS are being used.
- For horizontal applications, please contact your local

Sika representative.

- Proper application is the responsibility of the user. Field visits by Sika personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite.

SUBSTRATE PREPARATION

1. Surfaces should be clean and sound and free of all bond-inhibiting contaminants.
2. Concrete substrates should be fully cured.
3. Repair any holes, spalled and damaged concrete with appropriate Sika repair materials. Allow appropriate cure time prior to coating.
4. Remove any protruding concrete accessories and smooth out any surface irregularities.
5. High-pressure power wash surface (or abrasive blast on hard, dense surfaces) to create a profile of SP 3, per ICRI Guide 310.2.
6. Some stains may require chemical removal. Neutralize any cleaning compounds used and rinse with clean water.
7. Check the adhesion of old coatings according to ASTM D 3359, Measuring Adhesion by Tape Test Method A.
8. Remove any blisters or delaminated areas and sand edges to smooth rough areas and provide a transition to old paint areas.
9. Treat cracks greater than 1/32" with Sika Thorocoat®-746 Knife Grade or SikaWall® FL 748. Treat cracks larger than 1/4" as expansion joints and fill with appropriate Sika sealant.
10. New CMU must have a base coat of Sika Thorocoat®-749 Block Filler.

MIXING

1. Prior to use, mix Sika Thorocoat®-400 at a slow speed with a drill and mixing paddle to ensure uniform color and aggregate disbursement and to minimize air entrapment.
2. In multi-pail applications, mix the contents of each new pail into the partially used previous pail to ensure color consistency and smooth transitions from pail to pail.

APPLICATION

1. Sika Thorocoat®-400 is meant to be applied as a two-coat system, achieving a total dry-film thickness (DFT) of 12–16 mils (0.3 mm–0.4 mm). For re-coat applications one coat applied at 11–5 mils (0.279–0.127) DFT.
2. Apply Sika Thorocoat®-400 by brush, spray, roller, or spray-and-backroll.
3. Maintain proper uniform wet-film thickness (WFT) during application to ensure the performance characteristics desired (see yield rates section).
4. Always work to a natural break and maintain a wet edge during application.
5. For uniformity of color and texture, application techniques must be consistent throughout the project.
6. For horizontal applications, please contact your local Sika representative.

Roller

1. Use a quality $\frac{3}{4}$ – 1-1/4" nap roller cover.
2. Completely saturate the roller and keep it loaded with the coating to build the required mils. Never dry roll.
3. Cross roll, maintaining a wet edge, to achieve uniform thickness. Backroll in one direction for a consistent appearance.

Spray

1. Equipment is available for spraying all grades of Sika Thorocoat®-400. For fine and coarse textures, it is necessary to use a heavy-duty sprayer designed for the application of coatings that contain sand particles. Contact the equipment manufacturer for further recommendations.
2. For smooth and fine grades, backrolling in one direction after spray application is recommended to achieve uniform texture and film thickness.

Brush

1. Application by brush is recommended only for small inaccessible areas, e.g., on touch-ups.
2. Use only a nylon brush.

CLEANING OF TOOLS

Clean all tools and equipment immediately with water. Cured material may be removed by mechanical means.

LEGAL DISCLAIMER

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

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Product Data Sheet

Sika Thorocoat®-400
September 2024, Version 02.01
020303000000002090

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.

Sale of SIKA products are subject to the Terms and Conditions of Sale which are available at <https://usa.sika.com/en/group/SikaCorp/termsandconditions.html> or by calling 1-800-933-7452.

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