

## PRODUCT DATA SHEET

# Sikalastic® 1K US

### ONE-COMPONENT CEMENTITIOUS MORTAR, FIBER-REINFORCED FOR FLEXIBLE WATERPROOFING AND CONCRETE PROTECTION

#### PRODUCT DESCRIPTION

Sikalastic® 1K US is a one-component, crack-bridging, fiber-reinforced mortar, based on cement modified with special alkali-resistant polymers. Sikalastic® 1K US is suitable for application by brush, roller, trowel or spray equipment dependant on desired water ratio.

#### USES

- Waterproofing of balconies and terraces
- Flexible protection coating for reinforced concrete structures against the effects of freeze-thaw and carbon dioxide attack to improve durability
- For waterproofing of tanks, concrete cooling tower basins, reservoirs, concrete pipes, clear wells etc.
- Internal and external waterproofing and damp-proofing concrete, mortar blockwork and brickwork.
- Protection of concrete structures against the deleterious effects of deicing salts and freeze/thaw cycles.
- For sealing “hairline” cracks in concrete structures not subject to movement surfaces.
- Vertical and non-traffic horizontal surfaces
- Negative and positive side waterproofing applications

#### CHARACTERISTICS / ADVANTAGES

- One-component product, only water needs to be added
- Adjustable consistency, easy to apply by brush, roller or trowel
- Good sag resistance and easy to apply, even on vertical surfaces
- Good crack-bridging ability
- Very good adhesion on many substrates including concrete, cement mortars, stone, masonry
- Can be applied on damp substrates
- Improves the water-tightness of water-containing concrete tanks
- Protects against water penetration, yet water vapor permeable (breathable)
- Excellent freeze/thaw resistance
- Easy and fast mixing and application
- Good abrasion resistance
- Flexible to tolerate fine cracks and suitable in both interior and exterior application

#### APPROVALS / STANDARDS

- UL/NSF Standard 61/600 potable water compliant

#### PRODUCT INFORMATION

<b>Chemical Base</b>	Cement modified with alkali resistant polymers, selected aggregates, fine fillers admixtures, additives and fibers.
<b>Packaging</b>	44 lb (20 kg) bags
<b>Shelf Life</b>	12 months from date of production if stored properly in original,

unopened and undamaged sealed packaging.

<b>Storage Conditions</b>	Store properly in the original packaging, in cool and dry conditions; Store dry at 40°- 95°F (4°- 35°C). Protect from moisture		
<b>Appearance / Color</b>	Dark gray		
<b>Abrasion Resistance</b>	Material Loss at 7 Days	0.02% (24 g)	(ASTDM D4060)
<b>Compressive Strength</b>	28 Days	558 psi	(ASTM D695)
<b>Tensile Strength</b>	28 Days	343 psi	(ASTM C307)
<b>Water Tightness</b>	3 Days	3.25 perms	(DIN 1048 (Mod.) Under Hydrostatic Pressure)
	28 Days	2.50 perms	
<b>Water Penetration under Pressure</b>	3 day	No penetration at 72 psi <sup>1</sup>	(EN 12390-8) <sup>2</sup> (EN 14891 A.7)
	7 day	No penetration at 21.6 psi <sup>3</sup>	
<sup>1</sup> Value obtained with a total layer thickness of 120 mils in two layers with 1 gallon of water <sup>2</sup> Modified <sup>3</sup> Value obtained with a total consumption of 2.4 lb/ft <sup>2</sup> in two layers with 1.5 gallons of water			
<b>Water Penetration under Negative Pressure</b>	3 day	No penetration at 36 psi*	(UNI 8298/8)
*Value obtained with a total layer thickness of 120 mils in two layers with 1 gallon of water			
<b>Permeability to Water Vapor</b>	40 mils	15.99 perms	(ASTM E96) Procedure B
	80 mils	8.94 perms	
	120 mils	7.25 perms	
<b>Permeability to CO2</b>	S <sub>D</sub> ≥ 164 ft*		(EN 1062-6)
*Value obtained with a total layer thickness of 120 mils in two layers with 1 gallon of water			

## APPLICATION INFORMATION

<b>Mixing Ratio</b>	<b>Application Method</b>	<b>Water Dosage</b>
	Brush/Roller/Spray	1.5 gal (5.7 L or 12 pt) of water per 44 lb bag
	Trowel	1.0 gal (3.8 L or 8 pt) of water per 44 lb bag
<b>Coverage</b>	<b>1 Gallon of Water</b>	
	<b>Layer Thickness</b>	<b>Approx. Coverage</b>
	40 mils	180 sqft/bag
	80 mils	90 sqft/bag
	120 mils	60 sqft/bag
	<b>1.5 Gallons of Water</b>	
	<b>Layer Thickness</b>	<b>Approx. Coverage</b>
	40 mils	200 sqft/bag
	80 mils	100 sqft/bag
	120 mils	66 sqft/bag
(Coverage figures do not include allowance for surface profile and porosity or material waste)		

<b>Layer Thickness</b>	<b>Min.</b> 40 - 60 mils	<b>Max.</b> 120 mils
<b>Product Temperature</b>	Condition material to 65°-75°F conditions before using.	
<b>Ambient Air Temperature</b>	Minimum ambient and substrate temperatures are 45°F (7°C) and rising at the time of application	
<b>Waiting / Recoat Times</b>	Sikalastic®-1K must be completely hardened before over-coating or water contact. <b>Guide for waiting times at the following temperatures:</b>	
		+20 °C (Standard)
	Covering by Tiles	~2 Days
	Immersion by Water	~2 Days
	Contact with Drinkable Water	~15 Days
	Times will vary due to ambient and substrate humidity.	

## 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.

## LIMITATIONS

- If rain is anticipated within 1-2 days after application, the surface should be protected in order to prevent streaking.
- Not an aesthetic coating.
- As with all cement-based materials, avoid contact with aluminum to prevent adverse chemical reaction and possible product failure. Insulate potential areas of contact by coating aluminum bars, rails, posts etc. with an appropriate epoxy such as Sikadur® Hi-Mod 32.
- Allow 2 days (48) hours of air curing before subjecting to water submersion

## ENVIRONMENTAL, HEALTH AND SAFETY

## APPLICATION INSTRUCTIONS

### SURFACE PREPARATION

- Substrates must be structurally sound, clean, dry and free of all contaminants such as dirt, oil, grease, cement laitance, coatings and other surface treatments etc.
- Clean surfaces by blast cleaning, high-pressure water-jetting, wire-brushing, grinding etc., in order to remove all previous coatings, any traces of grease, rust, release agents, cement laitance and any other material which could reduce adhesion.
- All dust deposits from this preparation must also be removed i.e. by vacuum.
- Repair concrete substrates, if necessary, with an

appropriate cementitious mortar from the SikaTop® or SikaQuick® range of repair materials.

- All surfaces must be saturated surface dry (SSD), with no standing water at time of application.

### MIXING

Wet down all tools and mixer to be used. Pour appropriate amount of clean water for the desired consistency/application method into a suitably sized mixing container. Slowly add the entire bag's contents of Sikalastic® 1K US to the mixing water while continuously mixing with a low-speed rotary drill (400-600 rpm) and paddle. Add only additional water up to the maximum to achieve a desired consistency. Do not overwater as excess water may result in difficulty handling and/or not meeting stated typical physical performance values. Mix to a uniform consistency, maximum 3 minutes. Do not re-temper.

### APPLICATION

Apply Sikalastic® 1K US by:

Roller/Trowel: Exerting good and even pressure onto the substrate;

Brush: In 2 directions (diagonally opposite / crosswise);

Mechanical Spray: Refer to Sika Technical Service for details

The optimum waterproofing performance is obtained by applying Sikalastic® 1K US by trowel or roller in at least 2 layers. Application by brush must be undertaken with the maximum attention to uniformly covering the whole surface. If the application of min. 2-3 layers is required, subsequent layers must be applied crosswise. Wait until the first layer is dry to touch before applying subsequent layers. The application shall cover the whole surface of the substrate in a uniform thickness.

## OTHER RESTRICTIONS

See Legal Disclaimer.

## 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](http://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.

### Sika Corporation

201 Polito Avenue  
Lyndhurst, NJ 07071  
Phone: +1-800-933-7452  
Fax: +1-201-933-6225  
[usa.sika.com](http://usa.sika.com)



### Product Data Sheet

Sikalastic® 1K US  
July 2023, Version 01.02  
020701010010000380

Sikalastic1KUS-en-US-(07-2023)-1-2.pdf

