## SikaTop® 122 PLUS

Two-component, polymer-modified, cementitious, trowel-grade mortar plus Sika FerroGard® 901 penetrating corrosion inhibitor

### Description
SikaTop® 122 PLUS is a two-component, polymer-modified, portland cement based, fast-setting, trowel-grade mortar. It is a high performance repair mortar for horizontal and vertical surfaces and offers the additional benefit of Sika FerroGard® 901, a penetrating corrosion inhibitor.

### Where to Use
- On grade, above and below grade on concrete and mortar.
- On horizontal surfaces.
- As a structural repair material for parking structures, industrial plants, walkways, bridges, tunnels, dams, ramps, floods, etc.
- To level concrete surfaces.
- As an overlay system for topping/resurfacing concrete.

### Advantages
- Extremely low shrinkage proven by four industry standard test methods.
- High compressive and flexural strengths.
- High abrasion resistance.
- Increased freeze/thaw durability and resistance to deicing salts.
- Compatible with coefficient of thermal expansion of concrete - Passes ASTM C-884.
- Increased density - improved carbon dioxide resistance (carbonation) without adversely affecting water vapor transmission (not a vapor barrier).
- Sika FerroGard® 901, a penetrating corrosion inhibitor - reduces corrosion even in the adjacent concrete.
- USDA certifiable for the food industry.
- ANSI/NSF Standard 61 potable water compliant.

### Coverage
0.51 cu. ft./unit mortar; 0.75 cu. ft/unit concrete; (mixed mortar + 42 lbs. 3/8 pea gravel)

### Packaging
Component ‘A’ - 1-gal. plastic jug; 4/carton.
Component ‘B’ - 61.5-lb. multi-wall bag.

### Typical Data (Material and curing conditions @ 73°F (23°C) and 50% R.H.)

- **Density (wet mix)**: 136 lbs./ft³ (2.18 kg./l)
- **Flexural Strength**: ASTM C 293, 28 days, 1,500 psi
- **Split Tensile**: ASTM C 496, 28 days, 500 psi
- **Bond Strength**: ASTM C 882 (modified), 28 days, 2,000 psi
- **Compressive Strength**: ASTM C 109, 1 day, 2,500 psi, 7 days, 5,300 psi, 28 days, 7,000 psi
- **Shrinkage**: ASTM C 157 (mod. ICRI 320.3R), 28 days, <0.05%, 28 days, <0.021%
- **Ring Test (days)**: ASTM C 1581, 7 days, >70 days, 9 μstrain
- **Ring Test - Average Max Strain**: ASTM C 1581, 0.49 psi/day
- **Ring Test - Potential for Cracking**: ASTM C 1581, Low
- **Baenzinger Block**: ASTM C 666, 90 days, No cracking
- **Freeze/Thaw Durability (300 cycles)**: ASTM C 666, 98%
- **CI Permeability**: ASTM C 1202, <500 Coulombs.
- **Direct Bond Strength**: ASTM C 1583, 7 days, 400 psi, 28 days, >300 psi
- **Modulus of Elasticity**: ASTM C 531, 3.00x10⁶ psi
- **Initial Set Time (min)**: ASTM C 266, 40-70
How to Use
Substrates
Concrete, mortar, and masonry products.

Surface Preparation
Remove all deteriorated concrete, dirt, oil, grease and all bond inhibiting materials from surface. Be sure repair area is not less than 1/8 inch in depth. Preparation work should be done by high pressure water blast, scabbler, or other appropriate mechanical means to obtain an exposed aggregate surface with a minimum surface profile of ±1/16 inch (CSP-6); ±1/8 inch (CSP-8). Saturate surface with clean water. Substrate should be saturated surface dry (SSD) with no standing water during application.

Reinforcing Steel: Steel reinforcement should be thoroughly prepared by mechanical cleaning to remove all traces of rust. Where corrosion has occurred due to the presence of chlorides, the steel should be high-pressure washed with clean water after mechanical cleaning. For priming of reinforcing steel use Sika® Armatec® 110 EpoCem (Consult Product Data Sheet).

Priming Concrete Substrate: Prime the prepared substrate with a brush or sprayed applied coat of Sika® Armatec® 110 EpoCem (consult Product Data Sheet). Alternatively, a scrub coat of SikaTop® 122 PLUS can be applied prior to placement of the mortar. The repair mortar has to be inserted into the wet scrub coat before it dries.

Mixing
Pour approximately 7/8 of Component ‘A’ into the mixing container. Add Component ‘B’ (powder) while mixing continuously. Mix mechanically with a low-speed drill (400-600 rpm) and mixing paddle or mortar mixer. Add remaining Component ‘A’ (liquid) to mix if a more loose consistency is desired. Mix to a uniform consistency, maximum 3 minutes. Thorough mixing and proper proportioning of the two components is necessary.

For SikaTop® 122 PLUS concrete: Pour all of Component ‘A’ into mixing container. Add all of Component ‘B’ while mixing, then introduce 3/8 inch coarse aggregate at desired quantity. Mix to uniform consistency, maximum 3 minutes. Addition rate is 42 lbs. per bag (approx. 3.0 to 3.5 gal. by loose volume). The aggregate must be non-reactive (reference ASTM C 1260, C 227 and C 289), clean, well-graded, saturated surface dry, have low absorption and high density, and comply with ASTM C 33 size number 8 per Table 2. Note: Variances in the quality of the aggregate will affect the physical properties of SikaTop® 122 PLUS. The yield is increased to 0.75 cu. ft/unit with the addition of the aggregate (42 lbs.). Do not use limestone aggregate.

Application
SikaTop® 122 PLUS must be scrubbed into the substrate, filling all pores and voids. Force material against edge of repair, working toward center. After filling, consolidate, then screed. Allow mortar or concrete to set to desired stiffness, then finish with wood or sponge float for a smooth surface, or broom or burlap-drag for a rough finish.

Tooling & Finishing
As per ACI recommendations for Portland cement concrete, curing is required. Moist cure with wet burlap and polyethylene, a fine mist of water or a water based* compatible curing compound (ASTM C 309 compliant). Curing compounds adversely affect the adhesion of following layers of mortar, leveling mortar or protective coatings. Moist curing should commence immediately after finishing. Protect newly applied material from direct sunlight, wind, rain and frost.

*Pretesting of curing compound is recommended.

Limitations
Application thickness: Min. Max. in one lift
Neat 1/8 inch (3 mm) 1 inch (25 mm)
Extended 1 inch (25 mm) 4 inches (100 mm)

- Minimum ambient and surface temperatures 45°F (7oC) and rising at time of application.
- Addition of coarse aggregates may result in variations of the physical properties of the mortar.
- Do not use solvent-based curing compound.
- Size, shape and depth of repair must be carefully considered and consistent with practices recommended by ACI or ICRI. For additional information, contact Technical Service.
- For additional information on substrate preparation, refer to ICRI Guideline No.310.2R Coatings, Polymer Overlays, and Concrete Repair.
- If aggressive means of substrate preparation is employed, substrate strength should be tested in accordance with ACI 503 Appendix A prior to the repair application.
- 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® 32, Hi-Mod.

Prior to each use of any Sika product, the user must always read and follow the warnings and instructions on the product’s most current product data sheet, product label, and safety data sheet which are available at http://usa.sika.com/ or by calling Sika’s technical service department at 800.933.7452. Nothing contained in any Sika 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 data sheet, product label, and safety data sheet prior to product use.

Keep container tightly closed. Keep out of reach of children. Not for internal consumption. For industrial use only. For professional use only.

For further information and advice regarding transportation, handling, storage and disposal of chemical products, users should refer to the actual Safety Data Sheet containing physical, ecological, toxicological and other safety related data. Read the current actual Safety Data Sheet before using the product. In case of emergency, call CHEMTREC at 1-800-424-9300, International 703-527-3887.

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 shelf life. User determines suitability of product for intended use and assumes all risks. Buyer’s sole remedy shall be limited to the purchase price or replacement of product exclusive of labor or cost of labor. NO OTHER WARRANTIES EXPRESS OR IMPLIED SHALL APPLY INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Sika SHALL NOT BE LIABLE FOR ANY 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 THIS PRODUCT ARE SUBJECT TO Sika’S TERMS AND CONDITIONS OF SALE AVAILABLE AT HTTP://USA.SIKA.COM/ OR BY CALLING 800-933-7452.

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Regional Information and Sales Centers. For the location of your nearest Sika sales office, contact your regional center.

Sika Corporation
201 Polito Avenue
Lyndhurst, NJ 07071
Phone: 800-933-7452
Fax: 201-933-6225

Sika Canada Inc.
601 Delmar Avenue
Pointe Claire
Quebec H9R 4A9
Phone: 514-697-2610
Fax: 514-694-3087

Sika Mexicana S.A. de C.V.
Carretera Libre Celaya Km. 8.5
Fracc. Industrial Balvanera
Corregidora, Querétaro
C.P. 76920
Phone: 52 442 2385800
Fax: 52 442 2250537