

SikaTop® 121 PLUS

Two-component, polymer-modified, cementitious leveling/pore sealing mortar plus FerroGard 901 penetrating corrosion inhibitor

Description	SikaTop® 121 PLUS is a two component, polymer-modified, leveling and pore sealing mortar with the additional benefit of FerroGard® 901, penetrating corrosion inhibitor. SikaTop® 121 PLUS provides a smooth substrate, free of irregularities and bug holes for following protective coatings.
Where to Use	<ul style="list-style-type: none"> ■ As a leveling/pore sealing mortar prior to protective coatings. ■ On horizontal, vertical and overhead surfaces, interior and exterior. ■ On grade, above and below grade, on concrete and mortar substrates. ■ Block filler. ■ Minor repair for gouges and broken edges.
Advantages	<ul style="list-style-type: none"> ■ Excellent adhesion to concrete and mortar substrates. ■ High flexural and compressive strengths. ■ Increased density - improved carbon dioxide resistance (carbonation) without adversely affecting water vapor transmission (not a vapor barrier). ■ Increased freeze/thaw durability and resistance to deicing salts. ■ Adds effective cover over rebars. ■ Enhanced with FerroGard® 901, a penetrating corrosion inhibitor - reduces corrosion even in the adjacent concrete. ■ Compatible with coefficient of thermal expansion of concrete - Passes ASTM C-884 (modified). ■ Can be applied over Sika® FerroGard® 903, corrosion inhibiting impregnation. ■ Not flammable
Coverage	0.4 cu. ft./unit; One unit covers approximately 65 sq. ft. (6 m2) of smooth surface at 1/12 inch (2 mm) thickness
Packaging	Component 'A' - 1 gal. plastic jug; 4/carton. Component 'B' - 46.5 lb. multi-wall bag.

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

RESULTS MAY DIFFER BASED UPON STATISTICAL VARIATIONS DEPENDING UPON MIXING METHODS AND EQUIPMENT, TEMPERATURE, APPLICATION METHODS, TEST METHODS, ACTUAL SITE CONDITIONS AND CURING CONDITIONS.

Shelf Life	One year in original, unopened packaging.
Storage Conditions	Store dry at 40°-95°F (4°-35°C). Condition material to 65°-75°F before using. Protect Component 'A' from freezing; if frozen, discard.
Color	Concrete gray when mixed.
Mixing Ratio	Plant-proportioned kit. Mix entire unit.
Application	Approximately 45 min. after adding Component 'B' to Component 'A'.
Time	Application time is dependent on temperature and relative humidity.
Finishing Time	45 to 60 min. after combining components; depends on temperature, relative humidity, and type of finish desired.
Flexural Strength (ASTM C-293)	28 days 2,000 psi (13.8 MPa)
Splitting Tensile strength (ASTM C-496)	28 days 750 psi (5.2 MPa)
Bond Strength* (ASTM C-882 modified)	28 days 2,000 psi (13.8 MPa)
Bond Strength Pull-Out Test (ACI 503R-30 modified)	28 days 350 psi (2.4 MPa) substrate failure
Compressive Strength (ASTM C-109)	
1 day	1,250 psi (8.6 MPa)
7 days	5,000 psi (34.5 MPa)
28 days	6,000 psi (41.4 MPa)



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 ONLINE AT [HTTP://USA.SIKA.COM/](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.

Permeability (AASHTO T-277) 28 days Approximately 500 Coulombs

Corrosion Testing for FerroGard 901

Cracked Beam Corrosion Tests:

Reduced corrosion rates 63% versus control specimens. ASTM G109 modified after 400 days.

* Mortar scrubbed into substrate.

How to Use

Substrate	Concrete, mortar, and masonry products.
Surface Preparation	Remove all deteriorated concrete, dirt, oil, grease and all bond-inhibiting materials from the surface. Surface should be open-pore and textured (CSP-4). Saturate surface with clean water. Substrate should be saturated surface dry (SSD) with no standing water during application.
Priming	For priming of reinforcing steel use Sika® Armatec® 110 EpoCem (consult Technical Data Sheet). Concrete Substrate: Prime the prepared substrate with a brush or sprayed applied coat of Sika® Armatec® 110 EpoCem (consult Technical Data Sheet). Alternately, a scrub coat of SikaTop® 121 Plus can be applied prior to placement of the mortar. The repair mortar has to be applied into the wet scrub coat before it dries.
Mixing	Pour approximately 4/5 of Component A into mixing container. Add Component B while continuing to mix. Mechanically mix with a low-speed drill (400-600 rpm) and paddle or appropriate-size mortar mixer. Mix to uniform consistency, maximum 3 minutes. Add remaining Component A to mix if a more loose consistency is desired. Manual mixing can be tolerated only for less than a full unit.
Application	SikaTop® 121 PLUS can be applied by trowel, notched trowel, stiff bristle, or low pressure hopper gun. Work the material well into the prepared substrate, filling all pores and voids. As soon as the mortar layer starts to set, a uniform surface texture can be obtained by rubbing the surface with a fine sponge or a plastic trowel. Do not overwork SikaTop® 121 PLUS during finishing and avoid the use of additional water.
Tooling and Finishing	As per ACI recommendations for portland cement concrete, curing is required. Protect the freshly applied mortar against direct sunlight, wind, frost and rain. Curing compounds adversely affect the adhesion of protective coatings. Therefore, do not use a water based curing compound, if the leveling mortar is going to be over coated.
Limitations	<ul style="list-style-type: none"> ■ Application thickness: Minimum 1/12 inch (2 mm); Maximum 1/6 inch (4 mm) ■ Minimum ambient and surface temperatures, 45°F (7°C) and rising at time of 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® Hi-Mod 32.

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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 Sheets 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.

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 online 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 instruction for each Sika product as set forth in the current Product Data Sheet, product label and Safety Data Sheet prior to product use.

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