

Sika® Level-125

Durable, cementitious, self-leveling underlayment

Description	Sika® Level-125 is a one-component, durable and versatile cementitious underlayment for interior concrete, and cementitious substrates. It can be applied manually or by pump to produce a self-smoothing, rapid-setting, flat and economical substrate prior to the application of a final floor finish. Typical application thickness is 1/8 to 2 inches* (3 to 50 mm). * in localized areas
Where to Use	Interior floor leveling and smoothing applications where floor coverings are to follow, such as: Institutional - schools, colleges, hospitals, clinics, libraries, galleries, museums Commercial - offices, corridors, hallways, canteens, cafeterias, stores, hotels, restaurants Residential - domestic properties, condominiums and high rise construction
Advantages	<ul style="list-style-type: none">■ Easy and quick to install■ Zero VOC content and low odor■ Self-leveling■ Manual or pumpable application■ Levels new and renovates old floors■ Suitable for overcoating with non-moisture sensitive tile after 2-3 hours■ Floor coverings (carpet, vinyl, PVC, rubber, engineered wood flooring) can be installed after 1-3 days■ Excellent underlay for tiles, sheet products and wood floor bonding systems
Coverage	Per 50 lb. bag 1/8" (3.2 mm) 42 ft ² 1/4" (6.3 mm) 21 ft ² 1/2" (12.5 mm) 11 ft ² 1" (25 mm) 5.3 ft ² (Coverage figures do not include allowance for surface profile and porosity or material waste)
Cure Mechanism	Polymer modified rapid hardening cement.
Packaging	50 lb. (22.7 kg) 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	1 year from date of production if stored properly in original, unopened and undamaged sealed packaging
Storage Conditions	Store dry at 41°-86°F (5°-30°C). Condition material to 65°-75°F (18°-24°C) before using. Protect from moisture. If damp, discard material
Color	Concrete gray
Mixing Ratio	4 quarts (3.79 L) of water per 50 lb. (22.7 kg) bag
Application Temp.	Substrate & ambient between 41°F (5°C) and 86°F (30°C)
Application Thickness	1/8" - 2" (3 up to 50 mm) Can be extended with aggregate up to 2.5" (64 mm)
Density	133 lbs/cu.ft.
Working Time	Approx. 25 minutes
Setting Times (ASTM C191)	Initial Set – 45-90 min.; Final Set – 70-100 min.
Ready for Foot Traffic	2-3 hours
Ready for Covering	Tiles or Stone: 2-3 hours Floor coverings: 2-3 days
Flexural Strength (ASTM C348)	1,150 psi (8 MPa) at 28 days
Compressive Strength (ASTM C-109),psi	1 day 1,250 psi (8.6 Mpa) 7 days 2,500 psi (17.2 Mpa) 28 days 4,000 psi (28 Mpa)
Pull-Out Strength 3/16" (5 mm) thickness with Sika® Level-01 Primer Plus (ACI 503)	> 290 psi (2 MPa)
VOC (EPA METHODE 24)	0 g/l

Construction



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How to Use

Surface Preparation

- All substrate must be dry, stable, sound and free of all contaminants such as grease, oil, paint, wax, dust, curing and sealing compounds that will interfere with the penetration the primer and the adhesion of Sika® Level-125.
- Careful consideration should be given to the selection of the method of mechanical surface preparation and the timing of application of primer and underlayment. Immediately following mechanical preparation on some excessively porous substrates, outgassing will increase for a short period of time (approx. 48 hours) until equilibrium in slab vapor pressure and the ambient environment is reached.
- Consult Sika® Technical Service for recommendations.
- **Concrete & Cement Substrates:** Prepare concrete, cement and dense substrates, including ceramic, quarry and vinyl tiles by mechanical means, such as shot blasting, sandblasting, water-jetting, scarifying, or other appropriate methods, to achieve an open-textured surface (ICRI - CSP 3 minimum). Weak surfaces should be removed. All cracks and holes should be similarly filled to prevent seepage. Repair with Sika® Level SkimCoat or SikaQuick® mortar prior to priming and levelling. The compressive strength of the concrete substrate should be at least 2,900 psi (20 MPa) at 28 days with a minimum tensile strength of 200 psi (1.4 MPa).
- **Gypsum Surfaces:** The compressive strength of a gypsum-based substrate should be at least 2,000 psi (13.8 MPa). It must be fully cured and totally dry.
- **Cutback Adhesive:** Old water-soluble adhesives should be removed completely. Old water-resistant adhesives should be mechanically removed as far as possible. The complete mechanical removal of cutback (i.e. grinding, sanding and blasting) can be hazardous as old cutback adhesive may contain asbestos. Do not sand or grind adhesive residue. Harmful dust may result. Inhalation of asbestos dust may cause asbestosis or other serious bodily harm. Please consult the adhesive manufacturer and all applicable government agencies for rules and regulations concerning the removal of flooring and adhesives that contain asbestos. Prime remaining adhesive residues accordingly.
- **OSB/Plywood Subfloors:** Where installing Sika® Level-125 over wooden subfloors, ensure that the subfloor consists of at least two layers of exterior grade plywood, a minimum of 1.25" (32 mm) thickness and meets, as a minimum, the deflection parameters of L/360 (live and dead loads taken into consideration). The OSB/plywood must then be suitably secured, bonded and prepared to a contaminant free and sound condition. Consult the manufacturer of the final floor covering with regard to the deflection requirements of the floor finish system.

Priming

- Prime standard absorbent substrates such as concrete and cement with Sika® Level-01 Primer Plus (1:3).
- Prime non-absorbent, smooth, sound substrates such as ceramic tiles and old water-resistant adhesive residues (removed as much as possible) with Sika® Level-02 EZ Primer.
- This product is not a vapor barrier and will allow free passage of moisture. Follow the directions of the floor covering manufacturer regarding the maximum allowable substrate moisture content and test the substrate prior to installing Sika® Level-125. Where substrate moisture exceeds the maximum allowed then application of Sika® MB or Sika® MB Redline may be used to suppress residual moisture.
- Refer to the respective PDS for complete and detailed instructions on the usage of each Primer.

Mixing

- Pour 4 quarts of cool potable water (approx. 70°F) into a suitably sized and clean mixing container, using a calibrated measuring jug, or similar, to ensure strict control of the water content (do not over-water). If available water is not at this temperature, then consideration should be given to cooling/heating the water. Add Sika® Level-125 to the water, while slowly mixing, adding the complete contents of the 50 lb. bags.
- Mix with a high-speed drill (min 650 rpm) and an egg beater style mixing paddle to blend water and powder for approximately 3 minutes, until a lump-free and uniform mix has been produced.
- Do not overmix or allow the paddle to rise above the level of material as this will introduce and entrap air into the mix, potentially shortening the working life or causing pin-holing in the underlayment.
- Let the mixed material stand until the majority of air bubbles have dispersed.

Application

- Pour the mix and spread using a smoothing trowel. Even surfaces are easily achieved using a pin leveler. In higher thickness using a spike roller is recommended.
 - If a second layer of leveling compound has to be applied, prime the first layer with Sika® Level-01 Primer Plus (1:1) when the first layer is walkable. The maximum layer thickness must not be exceeded in case of two layer applications.
 - The second layer must not exceed the layer thickness of the first layer.
 - Protect curing Sika® Level-125 layers from high ambient temperatures, direct sunlight and ensure an adequate air circulation.
 - The cured surface of Sika® Level-125 must be protected from any type of contamination by installing a suitable coating. Always install an adequate number of properly located test areas, to include the finish flooring, to determine the suitability of the product for its intended use. As floor coverings vary, always contact and rely upon the floor covering manufacturer for specific directions such as maximum allowable moisture content, adhesive selection, and intended end use of the product. Low substrate temperatures and/or high ambient humidity require longer drying times for primers.
 - Sika® Level-125 is not intended to be use as a wear layer.
 - All cement based products have the potential for cracking. Cracking, such as hair line cracking cannot be considered as a product defect or installation failure and must be covered with ceramic tiles, carpet, VCT, wood floors, etc.
- For large scale areas that require deeper applications, the following recommendations can be used to minimize material cost:**

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1. The material can be extended by adding up to 30% of 20/30 grade sand during mixing to achieve up to 2.5" in one lift. A reduction in flow, approximately 15%, can be expected. The final layer should be neat to allow for a smooth finished floor. When adding aggregate, expect coverage to increase by approximately .16 cu.ft. per 25 lbs of aggregate.
2. Pre-washed 3/8" pea-gravel can be pre-placed into the area being leveled allowing for up to 2.5" in one lift. Applicator must be aware that the aggregate can cause voids in the underlayment if not filled correctly. When adding aggregate, expect coverage to increase by approximately 16 cu.ft. per 25 lbs of aggregate. Multiple lifts can also be applied to achieve greater depths, making sure to prime with Sika® Level-01 Primer Plus in between lifts. If necessary, further detailed recommendations can be obtained by calling Sika Corporation's Technical Service Department. Over large areas, application by conventional piston, rotor-stator or underlayment type pumps is more appropriate. Thoroughly spike roll in two directions (90°) to remove installation marks and any entrapped air, but avoid overworking.

Clean Up

- Clean tools in water immediately.

Disposal

- Empty packaging and dispose of in accordance with federal, state and local waste disposal regulations.

Limitations

- For interior use only. Not suitable for slopes or inclines >0.5%
- Do not apply Sika® Level-125 onto based, chipboard, particle board, hardboard, metal, gypsum-based floors or dimensionally unstable substrates.
- Engineer-approved wooden (plywood) subfloors must be at least 1.25" (3.2 cm) in thickness and must be properly secured, bonded, and prepared and free of contaminants and loose friable material.
- Always prime concrete and cement substrates with Sika® Level-01 Primer Plus.
- Protect Sika® Level-125 from excessive heat and moving air by turning off radiant heating and forced air ventilation for 24 hours before installation and while the underlayment is curing.
- Do not exceed the recommended water dosage and use clean potable water.
- Temperature variations will affect working time, with low temperatures extending drying times.
- Protect newly applied Sika® Level-125 from condensation and water for at least 24 hours.
- Prevent contaminants, dust and dirt from coming into contact with the underlayment for at least 4 hours and do not expose to rolling dynamic loads for 2 days (at 73°F, 50% R. H.).
- When overcoating with Sika® MB or Sika® MB Redline, mechanical preparation may be required to remove all surface laitance and material which could interfere with adhesion.
- If subsequent layers of Sika® Level-125 are installed on existing, cured Sika® Level-125, mechanical preparation and re-priming is required.
- As the thickness of the underlayment will influence the time at which it can be overcoated or overlaid with stones, tiles, or coverings, the manufacturer of such materials must be consulted for guidance regarding substrate moisture content and other characteristics.
- Sika® Level-125 does not provide an aesthetic finish and is intended to receive a final floor covering.
- For adhesives other than SikaBond®, we recommend a test application prior to use.

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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.

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 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 SIKA'S TERMS AND CONDITIONS OF SALE AVAILABLE AT [HTTP://USA.SIKA.COM/](http://usa.sika.com/) OR BY CALLING 201-933-8800.

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