

Planitex SLF

Fiber-Reinforced, Gypsum, Self-Leveling Underlayment



DESCRIPTION

Planitex® SLF is a fiber-reinforced, gypsum-based, self-leveling underlayment with enhanced flexural strength. It resists cracking and provides an exceptionally smooth, hard surface for use in dry, interior residential and commercial areas. *Planitex SLF* provides an excellent substrate for a wide variety of floor coverings. *Planitex SLF* can also be used to cover radiant or in-floor heating systems.

FEATURES AND BENEFITS

- Fiber-reinforced; resists cracking or shrinking
- Provides smooth surface for floor-covering installations

INDUSTRY STANDARDS AND APPROVALS

Green certifications

- Living Building Challenge (LBC) Red List Free: This product has been verified per the most current Red List on the LBC's Website.

WHERE TO USE

- For repairing and smoothing properly primed, existing gypsum underlayments, concrete subfloors and approved wood underlayment before installation of floor coverings

LIMITATIONS

- Do not install over substrates containing asbestos.
- For dry interior installations only
- Do not install over concrete slabs on or below grade.
- Do not install when the moisture vapor emission rate (MVER) exceeds 5 lbs. per 1,000 sq. ft. (2,27 kg per 92,9 m²) per 24 hours, when using the anhydrous calcium chloride test (ASTM F1869).
- Do not install when the relative humidity (RH) of the concrete slab exceeds 80% (ASTM F2170).
- Do not install in areas with known hydrostatic moisture problems.
- Use only when the substrate temperature is between 50°F and 90°F (10°C and 32°C), and when the ambient RH is between 20% and 80%.
- Do not install unless the surface temperature of the substrate is 5 degrees F (2,8 degrees C) above the dew point.
- Do not bridge expansion and control joints. Instead, ensure that such joints are honored completely throughout the *Planitex SLF* installation.

SUITABLE SUBSTRATES

All substrates must be primed with the appropriate MAPEI primer before applying self-levelers. See MAPEI's "Primers for Self-Leveling Materials" reference guide and the appropriate primer's Technical Data Sheet.

- Properly prepared, sound, dimensionally stable, fully cured, dry concrete at least 28 days old and free from hydrostatic pressure
- Properly prepared, well-bonded and dimensionally stable ceramic tile, porcelain tile, quarry tile, natural stone, vinyl composition tile (VCT), cement and epoxy terrazzo, and epoxy-based moisture barriers
- Properly installed cement backer units (CBUs)
- Gypsum-based underlayments
- Properly prepared, durable, sound, stable and fully cured cement-based mortar beds
- Engineer-approved plywood or OSB subfloors in accordance with the most recent edition of the Tile Council of North America's F185 specification. When applying MAPEI underlayments to plywood flooring, installation requirements (finished flooring, load, use and/or deflection) may require the utilization of *Mapelath*TM or diamond mesh (meeting the requirements of ASTM C847) on top of the primed surface before the application of the underlayment.
- Existing nailed-down wood flooring (including plank wood subfloors, stripwood subfloors or nailed-down solid wood flooring) that has been covered over with at least one layer of 5/8" (16 mm) plywood, glued and screwed

Consult MAPEI's Technical Services Department for installation recommendations regarding substrates and conditions not listed.

SURFACE PREPARATION

- All substrates must be properly prepared, primed, structurally sound, stable, solid and dry.
- On concrete substrates, fill in deep areas, holes and cracks with an appropriate MAPEI patching compound or screed. Fluid self-leveler may leak through to a floor below or other unwanted cavities.

- On plywood substrates, fill joints with an acrylic-based caulking compound to prevent underlayment from leaking into a floor below.

See the reference guide “Surface-Preparation Requirements for Self-Leveling Underlayments” in the Floor Covering Installation Systems section of MAPEI’s Website.

MIXING

Before product use, take appropriate safety precautions. Refer to the Safety Data Sheet for details.

General mixing

1. Into a clean mixing container – a mixing barrel or a 5-gal. (18,9-L) plastic pail – pour the required amount of cool, clean potable water. For best results, the water temperature should be about 85°F (29°C). Slowly add the powder into the pre-measured water. The mixing ratio must remain consistent, at 5.5 U.S. qts. (5,20 L) of water per 50 lbs. (22,7 kg) of *Planitex SLF* powder. Do not overwater.
2. Mix with a high-speed drill and an oval paddle mixer for 2 to 3 minutes, creating a homogenous, lump-free consistency. Do not overmix; overmixing or moving the mixer up and down during the mixing process could trap air, shorten the pot life or cause pinholing during the application and curing process.

Pump mixing

1. *Planitex SLF* can be mechanically mixed, using the mixing ratio above, with a continuous mixer and pump (and at least 140 ft. [42,7 m] of hose) or a batch mixer and pump (and at least 110 ft. [33,5 m] of hose). The mixer and pump must be designed for gypsum materials and in good working condition. Periodic cleaning of pumping equipment is required per the manufacturer’s instructions. Be sure to pressure-test the rotor and stator before mixing.
2. To ensure a suitable mix and flow, test the mixed material from the pump hose’s end in a small test area before general application.

Note: Cool-weather conditions may require a longer mixing time or additional hose length to ensure the best product performance.

PRODUCT APPLICATION

Read all installation instructions thoroughly before installation.

1. Concrete substrates and ambient room temperatures should be maintained between 50°F and 90°F (10°C and 32°C) for 72 hours before, during and after application.
2. Before installation, close doors and windows, and turn off HVAC systems to prevent drafts during application and until the underlayment is cured. Protect areas from direct sunlight.
3. Quickly pour or pump *Planitex SLF* onto the properly prepared and primed surface in a ribbon pattern. Set the width of the pour at a distance that is ideal for maintaining a flowable wet edge throughout placement. If a flowable wet edge cannot be maintained, reduce the width of the pour. For best results, work as a team to provide a continuous flow of wet material, to avoid trapping air or creating a cold joint. Apply enough material to adequately cover all high spots.
4. Shortly after placing *Planitex SLF*, spread the material with a gauge rake to assist in gauging material to the desired depth. After achieving the desired depth, smooth the surface with a smoother to obtain evenness.
5. Second applications of *Planitex SLF* require that the surface of the first pour be primed with MAPEI’s *Primer L*™ diluted 1 to 3 (primer to water) or with *Primer T*™ diluted 1 to 2 (primer to water) at the appropriate dilution ratio.



CURING

- *Planitex SLF* must dry by evaporation of all moisture from the mixing process. Do not cover *Planitex SLF* with any moisture-impervious membranes or flooring until it is completely dry.
- Protect *Planitex SLF* from excessive heat or draft conditions during curing. Turn off all forced ventilation and radiant heating systems, and protect installation for up to 24 hours after completion.
- Avoid walking on the installed surface for at least 4 to 5 hours after installation, depending upon temperature and humidity conditions.
- Protect the installation from traffic, dirt and dust from other trades until *Planitex SLF* is completely cured and final flooring has been installed.
- Because of variability in the depth of pour, temperature and humidity, verify that *Planitex SLF* is appropriately dry by performing a moisture test with a Delmhorst Model G-79 or BD-2100 meter (set to the gypsum scale). With reliable, properly calibrated equipment, the floor is considered ready for application of floor coverings when the calibrated meter reads 5% or less. Readings should be taken on multiple locations. Ensure that the moisture content meets the manufacturer's specifications for the floor covering and final coating.
- Before applying adhesives, prime with *Primer L* or *Primer T* at the dilution ratio shown above. Perform a second application of primer where required to ensure that a continuous thin film of primer exists before the application of cementitious adhesives or materials.

CLEANUP

- Wash hands and tools with water promptly before the material hardens. Cured material must be mechanically removed.

Product Performance Properties

Laboratory Tests	Results
Compressive strength – ASTM C349 (Modified)	
1 day	> 2,320 psi (16 MPa)
28 days	> 5,655 psi (39 MPa)
Flexural strength – ASTM C348 (CAN/CSA-A23.2-8C)	
28 days	> 1,450 psi (10 MPa)
Cured density	115 lbs. per cu. ft. (1,84 kg per L)
pH	9 to 10
VOC content	0 g per L

Shelf Life and Product Characteristics

before mixing

Shelf life	1 year in original, unopened packaging stored at 73°F (23°C) and 50% RH
Physical state	Powder
Color	Off white

Protect containers from freezing in transit and storage. Provide for heated storage on site and deliver all materials at least 24 hours before work begins.

Application Properties

at 73°F (23°C) and 50% relative humidity

Mixing ratio	5.5 U.S. qts. (5,20 L) of water per 50 lbs. (22,7 kg) of powder
Mixing time	2 to 3 minutes
Application temperature range	50°F to 90°F (10°C and 32°C)
Flow time	8 to 10 minutes
Time before accepting light foot traffic	4 to 5 hours
Single-lift application range	1/8" to 2" (3 mm to 5 cm)
Waiting time for secondary applications	24 hours (depending on thickness of original pour)
Drying time before installation of floor coverings	<i>Planitex SLF</i> is dry when a moisture test with a Delmhorst Model G-79 or BD-2100 meter (set to the gypsum scale) reads 5% or less. This can range anywhere from 12 hours for an application thickness of 1/8" (3 mm) to more than 14 days for a thickness of 2" (5 cm).

Approximate Coverage*

per 50 lbs. (22,7 kg)

Thickness	Coverage
1/8" (3 mm)	48 sq. ft. (4,46 m ²)
1/4" (6 mm)	24 sq. ft. (2,23 m ²)
1/2" (12 mm)	12 sq. ft. (1,11 m ²)
1" (2,5 cm)	6 sq. ft. (0,56 m ²)
2" (5 cm)	3 sq. ft. (0,28 m ²)

*Coverage shown is for estimating purposes only. Actual jobsite coverage may vary according to substrate conditions, type of equipment, thickness applied and application methods used.

CSI Division Classification

Gypsum Cement Underlayment	03 54 13

Packaging

Size
Plastic bag: 50 lbs. (22,7 kg)

RELATED DOCUMENTS

- “Surface-Preparation Requirements for Self-Leveling Underlayments” reference guide**
- “Primers for Self-Leveling Materials” reference guide**

** At www.mapei.com

ADDITIONAL INFORMATION

Refer to the Safety Data Sheet (SDS) for specific data related to health and safety as well as product handling.

For information on MAPEI's commitment to sustainability and transparency, as well as how MAPEI products may contribute to green building standards and certification systems, contact sustainability_USA@mapei.com (USA).

WARNING

The test results shown in the TECHNICAL DATA table were obtained in compliance with test methods and curing cycles, if applicable, defined in the industry standards referenced on the Technical Data Sheet. Please note that the use of test procedures or methods other than those indicated in the table could lead to different values and that, in such cases, any liability of our company is excluded.

LEGAL NOTICE

The contents of this Technical Data Sheet ("TDS") may be copied into another project-related document, but the resulting document shall not supplement nor replace requirements per the TDS in effect at the time of the MAPEI product installation. For the most up-to-date TDS and warranty information, please visit our website at www.mapei.com. **ANY ALTERATIONS TO THE WORDING OR REQUIREMENTS CONTAINED IN OR DERIVED FROM THIS TDS SHALL VOID ALL RELATED MAPEI WARRANTIES.**

Before using, the user must determine the suitability of our products for the intended use, and the user alone assumes all risks and liability. **ANY CLAIM SHALL BE DEEMED WAIVED UNLESS MADE IN WRITING TO US WITHIN FIFTEEN (15) DAYS FROM DATE IT WAS, OR REASONABLY SHOULD HAVE BEEN, DISCOVERED.**

CONTACT INFORMATION

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For the most current product data and BEST-BACKEDSM warranty information,
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