**DESCRIPTION**

Planitex SL is a high-flow, gypsum-based, self-leveling underlayment with an exceptionally smooth, hard surface for use in dry interior residential and commercial areas. Planitex SL provides an excellent substrate for a wide variety of floor coverings. Planitex SL can also be used to cover radiant or in-floor heating systems.

**FEATURES AND BENEFITS**

- High-flow characteristics
- Easy to mix and place
- Provides smooth surface for floor-covering installations

**INDUSTRY STANDARDS AND APPROVALS**

**LEED v4 Points Contribution**

- Health Product Declaration (HPD)* Up to 2 points

* Using this product may help contribute to LEED certification of projects in the category shown above. Points are awarded based on contributions of all project materials.

**Additional 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 and approved wood underlayments before installation of floor coverings
- Interior residential (rental apartments, condominiums and homes)
- Interior commercial (office buildings, hotel rooms/hallways and restaurant dining areas)
- Interior heavy commercial (hotel lobbies, convention centers, airports and department stores)
- Interior institutional (hospitals, schools, universities, libraries and government buildings)

**LIMITATIONS**

- Do not install over substrates containing asbestos.
- For dry interior installations only
- Do not install over concrete slabs on or below grade unless it is known and evident that an intact vapor retarder is in place and directly under the concrete.
- 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.
- Do not install unless 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. Ensure that such joints are honored completely throughout Planitex SL.

**SUITABLE SUBSTRATES**

- All substrates must be primed with the appropriate MAPEI primer before applying self-levelers. See MAPEI’s Reference Guide RGC0609 (“Primers for Self-Leveling Materials” product selection guide) and the appropriate primer’s TDS.

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 Planitex SL from leaking into a floor below.
- On engineered plywood or oriented strand board (OSB) subfloors in accordance with the most recent edition of the Tile Council of North America’s T185 specification. When MAPEI underlayments are applied to plywood flooring, installation requirements (finished flooring, load, use and/or deflection) may require the utilization of MAPEI’s Mapelath™ 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 and nailed-down solid wood flooring) that has been covered over with at least one layer of 5/8” (16 mm) plywood that has been glued and screwed to the surface.
- Gypsum-based underlayments (refer to MAPEI’s Technical Bulletin #010313-TB, “Gypsum-Based Floors and Walls: Which MAPEI Products Can Be Applied?”) Consult MAPEI’s Technical Services Department for installation recommendations regarding substrates and conditions not listed.

MIXING

Choose all appropriate safety equipment before use. 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 SL 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 SL 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 85°F (10°C and 29°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 SL 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 the Planitex SL, 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. For depths of 1” to 2” (2.5 to 5 cm), mix Planitex SL with 40% by weight of clean, dry, #20 to #40 mesh sand. For example, 20 lbs. (9.07 kg) of sand would be mixed with 50 lbs. (22.7 kg) of Planitex SL. Mix and apply normally.
6. For fills of 2” to 3” (5 to 7.5 cm), pre-place clean, nonreactive aggregate or pea gravel – 1/8” to 3/8” (3 to 10 mm) in diameter – over the primed surface at no more than half of the total pour depth. Pour Planitex SL over placed aggregate. Rake aggressively to ensure full contact and bond with the substrate. Alternately, up to 30% by weight in aggregate can be added directly to Planitex SL during mixing. Immediately pour an additional layer of Planitex SL measuring 1/4” (6 mm) thick over the raked aggregate to provide a smooth, level surface.

Note: Use only clean, stable aggregates. Do not use limestone or other potentially reactive aggregates for extension.
7. Second applications of Planitex SL 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™...
Product Performance Properties

<table>
<thead>
<tr>
<th>Laboratory Tests</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compressive strength – ASTM C349 (Modified)</td>
<td></td>
</tr>
<tr>
<td>1 day</td>
<td>&gt; 2,030 psi (14 MPa)</td>
</tr>
<tr>
<td>28 days</td>
<td>&gt; 4,640 psi (32 MPa)</td>
</tr>
<tr>
<td>Flexural strength – ASTM C348 (CAN/CSA-A23.2-8C)</td>
<td></td>
</tr>
<tr>
<td>28 days</td>
<td>&gt; 1,300 psi (8.97 MPa)</td>
</tr>
<tr>
<td>Cured density</td>
<td>115 lbs. per cu. ft. (1.84 kg per L)</td>
</tr>
<tr>
<td>pH</td>
<td>9 to 10</td>
</tr>
<tr>
<td>VOCs (Rule #1168 of California’s SCAQMD)</td>
<td>0 g per L</td>
</tr>
</tbody>
</table>

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 | 2 to 3 hours |
| Single-lift application range | 1/8" to 1" (3 mm to 2.5 cm) |
| Single-lift application with sand or aggregate | 1" to 2" (2.5 to 5 cm) with #20 to #40 mesh sand 2" to 3" (5 to 7.5 cm) with pea gravel |
| Waiting time for secondary applications | 24 hours (depending on thickness of original pour) |

Drying time before installation of floor coverings: Planitex SL 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 28 days for a thickness of 3" (7.5 cm).

Approximate Coverage* per 50 lbs. (22.7 kg)

<table>
<thead>
<tr>
<th>Thickness</th>
<th>Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/8&quot; (3 mm)</td>
<td>48 sq. ft. (4.46 m²)</td>
</tr>
<tr>
<td>1/4&quot; (6 mm)</td>
<td>24 sq. ft. (2.23 m²)</td>
</tr>
<tr>
<td>1/2&quot; (12 mm)</td>
<td>12 sq. ft. (1.11 m²)</td>
</tr>
<tr>
<td>1&quot; (2.5 cm)</td>
<td>6 sq. ft. (0.56 m²)</td>
</tr>
</tbody>
</table>

*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

<table>
<thead>
<tr>
<th>Size</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Plastic bag: 50 lbs. (22.7 kg)</td>
<td></td>
</tr>
</tbody>
</table>
diluted 1 to 2 (primer to water), at their appropriate dilution ratios.

**CURING**

- **Planitex SL** must dry by evaporation of all moisture from the mixing process. Do not cover **Planitex SL** with any moisture-impervious membranes or flooring until it is completely dry.
- Protect **Planitex SL** 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 SL** is completely cured and final flooring has been installed.
- Because of variability in the depth of pour, temperature and humidity, verify that **Planitex SL** 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 ratios 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.

**RELATED DOCUMENTS**

- [“Gypsum-Based Floors and Walls: Which MAPEI Products Can Be Applied?”](https://www.mapei.com) technical bulletin

Refer to the SDS for specific data related to health and safety as well as product handling.

**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 or 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](http://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.