



PRODUCT DATA SHEET

SikaTile®-560 LFT

Premium grade polymer modified large format tile mortar

PRODUCT DESCRIPTION

SikaTile®-560 LFT is a one-component, premium grade, polymer modified mortar featuring extended adjustability and open time for interior and exterior setting of large format tile and natural stone. It may be applied from at 2.4 mm to 12.7 mm (3/32 in to 1/2 in) thickness.

Developed with Sika's latest generation of polymers and Sika's Fibermesh® technology resulting in excellent adhesion performances and flexibility. SikaTile®-560 LFT is formulated to provide the user with an exceptionally smooth and creamy tile-setting mortar to spread.

WHERE TO USE

For setting the following types of tiles:

- Ceramic and porcelain tile, quarry tile, mosaic tile and most cement body tile **A)**
- Large Format Tile Gauged Porcelain Tile Panels/Slabs **B)**
- Manufactured Stone (Faux Stone) and thin brick
- Moisture-insensitive stone tile **B)**

For the following applications:

- Residential and Commercial interior and exterior floors and walls
- Heated floor (water and electric systems) interior only
- Tub surrounds and shower
- Gang showers
- Steam rooms
- Shopping malls
- Airport terminals
- Balconies

On the following substrates:

- Concrete

- Mortar Bed
- Concrete Masonry
- Cement Terrazzo
- Cement Backer Board **C)**
- Exterior Grade Plywood **D)**
- Existing Ceramic and Natural Stone
- Gypsum Wallboard **D)** and **E)**
- SikaLevel® Underlayments and Toppings
- SikaTile® Membranes
- Over old ceramic and natural stone **F)**

A) The back of cement body tiles must first be primed with SikaLevel®-02 EZ Primer CA

B) Read **LIMITATIONS**

C) Consult cement backer board manufacturer for installation recommendations and to verify acceptability for exterior use. Refer to TTMAC Detail 305W for important information.

D) Interior Dry areas only

E) The surface must be primed with diluted SikaLevel®-03 Primer Plus

F) Read **SURFACE PREPARATION**

CHARACTERISTICS / ADVANTAGES

- No-Slake technology – No wait, just mix, trowel and install
- Excellent flexibility and adhesion
- Creamier and easier to spread
- Excellent handling characteristics through extended open and adjustment times
- Sag resistant
- Water resistant when cured
- For interior floors and walls
- For installations involving Large Format Tiles or Gauged Porcelain Tile Panels
- SikaTile®-560 LFT in installations that will continually be in immersion conditions such as swimming

pools, fountains or in long exposure to water such as gang showers and steam showers.

- For exterior floors

NOTE: For exterior wall installations use SikaTile®-530 LG (superior grade) or SikaTile®-580 LG Extreme (premium grade)

APPROVALS / CERTIFICATES

- Meets ISO 13007 - C2TES1P1 Classification
- Meets ANSI A118.4TE and A118.15TE standards

PRODUCT INFORMATION

Composition / Manufacturing	Portland cement, selected aggregates, water retention additives, redispersible polymer
Packaging	20 kg (44 lb) bag
Appearance / Colour	Grey
Shelf Life	12 months from date of production when stored in original, sealed package
Storage Conditions	Store in undamaged, unopened, original sealed packaging in dry conditions at temperatures between 5 °C and 35 °C. Protect from direct sunlight, heat and moisture.
CSC MasterFormat®	09 30 00 TILING

TECHNICAL INFORMATION




Pull-Off Strength	ISO 13007 Classification		
	Classification Code	Classification requirements	Results
	C2 (cementitious, improved adhesion)	≥ 1 MPa (145 psi) after standard aging, heat aging, water immersion and freeze / thaw cycles	Pass
	S1 (deformable adhesive)	≥ 2.5 mm and < 5 mm (≥ 0.1 in and < 0.2 in)	Pass
	T (vertical slip resistance)	0.5 mm (0.02 in) after 20 minutes	Pass
	E (extended open time)	≥ 0.5 MPa (72.5 psi) after 30 minutes	Pass
	P1 (normal adhesion to plywood)	≥ 0.5 MPa (72.5 psi)	Pass
Shear Adhesion Strength	ANSI Method / 4 Week Shear Bond Strength		

Test Method	Requirements	Results
ANSI A118.4 - shear strength, glazed wall tile	≥ 1.38 MPa (200 psi)	Pass
ANSI A118.4 - shear strength, quarry tile to quarry tile	≥ 2.07 MPa (300 psi)	Pass
ANSI A118.4 - shear strength, impervious ceramic (porcelain) mosaics	≥ 1.03 MPa (150 psi)	Pass
ANSI A118.15T - sag resistance (after 20 minutes)	≤ 0.5 mm (0.02 in)	Pass
ANSI A118.15E - extended open time (at 30 minutes)	≥ 0.5 MPa (72.5 psi)	Pass

APPLICATION INFORMATION

Mixing Ratio 5 to 5.6 L (1.32 to 1.48 US gal.) of clean potable water per 20 kg (44 lb) bag

Yield

Trowel	Coverage
(6 mm x 6 mm x 6 mm) (1/4 in x 1/4 in x 1/4 in) 	6 m ² to 7.9 m ² (65 ft ² to 85 ft ²)
6 mm x 10 mm x 6 mm (1/4 in x 3/8 in x 1/4 in) 	7.9 m ² to 8.2 m ² (85 ft ² to 95 ft ²)
12 mm x 12 mm x 12 mm (1/2 in x 1/2 in x 1/2 in) 	4.2 m ² to 5.1 m ² (45 ft ² to 55 ft ²)

* The consumption depends on the surface profile and roughness of the substrate and on the size of the tiles and the placing technique

Pot Life > 2 ½ hours

Open Time ≥ 30 minutes - Passes A118.4 and ISO 13007 for Extended Open Time

Curing Time Product curing time is affected by ambient and surface temperatures and humidity.

BASIS OF PRODUCT DATA

Product properties are typically averages, obtained

under laboratory conditions. Reasonable variations can be expected on-site due to local factors, including environment, preparation, application, curing and test

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methods.
Properties tested at 23 °C / 50 % r.h. unless stated otherwise.

LIMITATIONS

- Do not use where high moisture and hydrostatic conditions and/or recurring moisture problems exist.
- Do not install over moving control joints (with active cracks) or over expansion joints.
- Do not use SikaTile®-560 LFT below 13 °C or above 35 °C.
- Do not bond directly to hardwood, Luan plywood, particle board, strip wood floors, parquet, rubber, cushioned-back vinyl flooring, metal, fiberglass, plastic, OSB panels, or other unstable substrates.
- Cement mortar bed to which SikaTile®-560 LFT is to be applied shall be sound and solid with a direct tensile strength of no less than 0.5 MPa (72.5 psi).
- Do not use for setting resin-backed tiles. Instead, use Sika's epoxy or urethane adhesives.
- Spot bonding is not an approved installation method.
- Protect stored material from exposure to rain, condensation and high humidity as moisture may penetrate packaging, causing lumps.
- For best results, condition product to 18 °C to 27 °C prior to mixing and installation.
- When setting moisture sensitive natural stone (such as green marble, some limestone and granite), cement or agglomerate tiles. First, prime the back side back of the tile using SikaLevel®-02 EZ Primer CA.
- Wipe the backs of all stone tiles with a damp cloth to remove the dusty film that can prevent the adhesive from bonding to the tile. Flat Back Trowelling marble, granite and natural stone during installation is mandatory
- For installations involving Large Format Tiles or Gauged Porcelain Tile Panels on walls refer to SikaTile®-530 (superior grade) or SikaTile®-580 (premium grade).
- When tiling in cold conditions. Turn off all forced ventilation and radiant heating systems and protect the work against drafts during installation and for at least 72 hours after completion. When necessary, use indirect auxiliary heaters to maintain an adequate temperature level in the working area (ambient and surface temperatures). Exhaust temporary heaters to the exterior to prevent damage to the work or personal injury from carbon monoxide emissions. Maintain work area at a temperature no lower than 13 °C for at least 72 hours before and after installation.
- Alternatively, tiling in hot weather which can be defined as any combination of high air temperature, low relative humidity and wind velocity that can affect the performance of surface preparation, tile setting and grouting materials. Therefore, store materials in the shade or, ideally, at room temperature. Consider adjusting the time of application to a cooler or at least shaded time of the day. Protect from adverse weather conditions (such as but not limited to rain for at least 7 days).

ENVIRONMENT, HEALTH & SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

JOB SITE CONDITIONS

Maintain environmental conditions and protect work during and after installation. Comply with trade and industry standards and manufacturer's printed recommendations.

SUBSTRATE QUALITY

Substrate to have adequate strength, load-bearing capacity, be dimensional stable and be permanent dry.

SURFACE PREPARATION

Surfaces should be clean and free of dust, oil, grease, paint, tar, wax, curing agent, primer, sealer and any deleterious substance or conditions that may prevent, reduce or inhibit adhesion or performances of SikaTile®-560 LFT.

All supporting surfaces should be structurally sound, solid, stable. Surfaces shall be flat, plumb and true with a maximum permissible variation of 6 mm (1/4 in) in 3.05 m (10 ft) or more than 3 mm (1/8 in) in 600 mm (24 in) from the required plane. However, any tile or stone with at least one edge greater than 380 mm requires more stringent tolerances of the substrate with a maximum permissible variation of 3 mm (1/8 in) in 3.05 m (10 ft) or more than 1.5 mm (1/16 in) in 600 mm (24 in). Surfaces should be clean and free of dust, oil, grease, paint, tar, wax, curing agent, primer, sealer, form release agent and any deleterious substance or conditions that may prevent, reduce or inhibit adhesion or performance. Before work commences, examine the areas to be covered and report any improper condition(s) in writing to the general contractor, architect or engineer. User shall not proceed with the work until surfaces and conditions comply with the requirements indicated in this document; applicable industry standards; federal, provincial and local regulations, as well as good trade practices. By beginning work, the applicator/user acknowledges that the conditions are acceptable.

Resurfacing, patching, levelling or areas requiring a mortar bed should be prepared using the appropriate SikaLevel® self-levelling, patching, or SikaScreed®-40 screed mortar.

Expansion joints should comply with 301MJ Movement joint guidelines per TTMAC.

Surface treatments of any friable areas of the substrate must be mechanically removed. Careful consideration should be given to the selection of the method of mechanical preparation of the surface. Use SIKA's patching compounds or one of Sika's self-levelling material as required to bring the surface within tolerances. Localized substrate repairs up of 5 mm (13/64 in) or less can be levelled with SikaTile®-560 LFT and allow to set at least 18 hours.

WARNING: Refer to the Regulations Made Under the Canada Labour Code for additional information regarding requirements for handling surface containing or suspected of containing lead-based paints or any flooring, substrate or substances that may contain asbestos.

Concrete (and cement mortar beds)

Concrete must be cured for a minimum of 28 days (14 days for cement mortar beds or only 5 hours when using SikaScreed®-40 screed mortar). On grade or below grade concrete slabs must be installed over an effective vapour barrier. On a clean substrate free of dust, place a single drop of potable water (quarter size) on the substrate using a pipette. The concrete should turn dark. If the drop is absorbed within 60 seconds, the substrate can be considered porous (or absorptive) and acceptable for using SikaTile®-560 LFT. Otherwise, a bond test should be performed confirming good compatibility with the substrate. If an adequate bond cannot be achieved or in doubt, contact Sika Canada's Technical Service.

Plywood floors (interior residential floor in dry areas only)

When installing SikaTile®-560 LFT over wooden substrates. Suitable Subfloor (immediately over joists) shall be a minimum 16 mm (5/8 in) thick Douglas Fir plywood (CSA 0121), Canadian Softwood plywood 0151), Poplar plywood (CSA 0153), Construction sheathing or APA Sturd-I-Floor, Exposure 1 OSB. Joists to be spaced 406 mm (16 in) on center. Subfloor sheet ends end edges should be gapped 3 mm (1/8 in). The subfloor should be attached with 30 mm (1 3/16) screws placed 150 mm (6 in) o.c. around the perimeter and 200 mm (8 in) o.c. throughout the body of the panel. All sheet ends and edges must be supported by a framing member.

Suitable Underlayments (over the subfloor) shall be a minimum 16 mm (5/8 in) thick Group 1 exterior grade plywood, Select (SEL) or Select Tight Face (SEL TF) CANPLY classified exterior grade plywood conforming to CSA- 0121 standard for Douglas Fir (DFP) for direct bond

applications. Before purchasing/ordering plywood, note that the certification information (such as but not limited to CSA standard) can generally be found on the underside of the plywood. Offset underlayment joints from joints in subfloor and stagger joints between sheet ends. Underlayment should be attached with 30 mm (13/16 in) screws placed 150 mm (6 in) o.c. around the perimeter and 200 mm (8 in) on center. throughout the body of the panel. Underlayment screws to go through the total thickness of the assembly but should not penetrate the joists or cross bridging/solid blocking. Underlayment sheet edges should be gapped 6 mm (1/4 mm) to any abutting surfaces (ex: walls, counter, etc.).

NOTE: Regarding Deflection. The general rule for ceramic is that the maximum allowable deflection criterion is L/360 when exposed to live and dead loads (such as but not limited to kitchen islands for example) unless, if any one side is longer than 380 mm (15 in) then use the following recommendation for stone. For stone, the maximum allowable deflection criterion is L/720 (which, in essence, requires the substrate to be twice as rigid).

Old ceramic and natural stone (interior dry or wet areas only)

Old ceramic and natural stones should be sound and firmly laid, thoroughly cleaned the surface to eliminate the accumulation of soap (cleaner) residues which can build up to an inconspicuous film. Follow preparation by abrading the surface sanding by hand. For larger flooring jobs light shot blasting may be considered. Finish preparing by eliminating any residues on the surface and apply Sika®Level-02 EZ Primer (CA) (consult product data sheet for additional information) before using SikaTile®-560 LFT.

NOTE: Contact Sika's Technical Service for installation recommendations concerning substrates or conditions not listed.

SUBSTRATE QUALITY

MIXING

In a clean container, add between 5 to 5.6 L (1.32 to 1.48 US gal.) of clean potable water. Then add 1/2 bag of SikaTile®-560 LFT and mix at slow speed until a wet slurry is obtained. Add 1/4 bag and mix between 200-300 rpm until powder comes to a loose paste consistency. Add final 1/4 bag and mix thoroughly to a smooth and homogeneous consistency. Mortar consistency shall be such that when applied with the recommended notched trowel to the substrate, the ridges formed in the mortar do not flow or slump. During use, stir mortar mix occasionally. Do not add additional water.

NOTE: No Slake Technology - No wait, just mix, trowel

and install.

APPLICATION

Choose a notched trowel with sufficient depth to achieve more than 80% mortar coverage and transfer to substrate and back of tile for all interior applications. For exterior, commercial floor, in applications in wet areas, for tiles that are going to be subjected to heavy traffic or exposed to high impact or for tiles with any edge longer than 380 mm (15 in), a minimum of 95% coverage must be achieved. Flat Back Trowelling the tile may be necessary to meet these requirements. Flat Back Trowelling improves adhesion to tiles with bond breakers such as kiln release agents. It involves an application of a thin trowelled coat to the back side of the tile using the flat side of the trowel immediately before setting the tile. With pressure, apply a coat of mortar by using the flat side of the trowel to key the mortar into the substrate. With the notched side of the trowel, apply additional mortar by combing it in a single direction parallel to the shortest dimension of the tile. Spread only as much mortar as can be tiled before the product skins over.

Place the tiles firmly into the wet bond coat. Push the tiles back and forth in a direction perpendicular to trowel lines, to collapse the mortar ridges and to help achieve maximum coverage. Ensure proper contact of the mortar to the back of the tile and to the substrate by periodically lifting a few tiles to check for acceptable coverage and verify that corner and edges are fully supported. Open time can vary with job site conditions. Remove excess mortar from the joint areas so that at least 2/3 of the tile depth is available for grouting. Always allow bond coat to cure sufficiently before grouting and eventually opening to traffic. (Ref. TTMAC's Specification Guide 09 30 00 Tile Installation Manual).

Movement Joints: All expansion, control, construction, cold, saw-cut, isolation, contraction, and seismic joints in the structure should continue through the tilework, including such joints at vertical surfaces, as specified per TTMAC's Specification Guide 09 30 00 Tile Installation Manual, Detail 301MJ. Do not cover movement joints with mortar. Use a suitable sealant instead (following manufacturer's written instructions). Always test a small inconspicuous area for staining or leaching before use to ensure compatibility on natural stones.

GROUTING AND PROTECTION

Protect from impact and vibration for at least 48 hours. Allow at least 18 hours before grouting. Protect grouted area from foot traffic for at least 18 hours and 24 hours before allowing light traffic depending on temperatures and humidity conditions. Protect from heavy traffic for at least 7 days. As necessary, use load distributing protection over the installation when moving heavy equipment across tiled assembly.

Protect from rain or temperature below 5 °C for at least 7 days.

NOTE: Extended protection and downtime requirements before grouting may be required depending on temperature and humidity conditions and on the porosity and size of the tile or stone being installed

PROTECTING NEW TILE FLOOR

On completion of tile floor it is the responsibility of the owner/agent or general contractor to protect the floor from damage (TTMAC's Specification Guide 09 30 00 Tile Installation Manual).

CLEAN UP

Clean all tools and equipment after use with water. Once hardened, the product can only be removed mechanically.

LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for exact product data and uses.

LEGAL NOTES

The information, and in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising

out of any legal relationship whatsoever, can be inferred either from this information, or from any recommendations, or from any other advice offered. The information contained herein does not relieve the user of the products from testing them for the intended application and purpose. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request or may be downloaded from our website at: www.sika.ca

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