

BUILDING PRODUCT INFORMATION SHEET

SikaTile®-405 Lite

A FLEXIBLE, PREMIUM, SAND AND SILICA FREE, TILE AND STONE ADHESIVE WITH LIGHTWEIGHT GLASS TECHNOLOGY FOR A SMOOTH, EASY TO TROWEL APPLICATION

DESCRIPTION

SikaTile®-405 Lite is a flexible, premium, sand and Silica free, tile and stone adhesive with Lightweight Glass Technology for a smooth, easy to trowel application. SikaTile®-405 Lite superior non-sag and slip resistance for large heavy tiles and non-slump properties to eliminate tile lipage. SikaTile®-405 Lite is ideal for internal and external, for wall and floor applications.

SikaTile®-405 Lite is white in colour making it suitable for fixing white and translucent natural stone.

USES

SikaTile®-405 Lite is suitable for both thin-bed and thick-bed tile and stone applications up to 10mm layer thickness.

- Suitable for residential & commercial applications
- Thin and thick-bed tiling applications up to 10mm thick
- Wall & floor applications
- Internal and external applications
- Sika approved under-tile waterproofing systems
- Under-tile heating systems
- Sika approved acoustic reduction underlayment's

Suitable substrates include;

- Concrete
- Compressed cement boards*
- Cement-based screeds and renders
- Ceramic tile underlay / Fibre cement sheeting*
- Existing ceramic tiles (primed with SikaTile 015 NPP)
- Autoclaved aerated concrete / AAC
- Other suitable construction boards designed to receive tile & stone.

*refer to board manufacturer strict installation instructions for further details and load limits

Suitable tile types include;

- Ceramic & Porcelain tiles
- Natural stone (not sensitive to moisture)
- Agglomerates / Terrazzo / Man made stone (not sensitive to moisture)
- Mosaic tiles
- Quarry & Vitrified tiles

LIMITATIONS OF USE

The product is not a substitute for any mechanical fixings that are specified by the manufacturer of the element being bonded

FEATURES

- Lightweight Glass Technology made from 100% recycled glass.
- Excellent coverage, The coverage of a 13.5kg bag of SikaTile®-405 Lite is equivalent to a traditional 25kg bag of sanded adhesive, due to the Lightweight Glass Technology
- Crystalline Silica free formulation
- Sand free formulation
- AS ISO 13007 - C2TES1 classification
- Smooth easy trowel application
- Excellent non slump performance
- Versatile, internal & external applications
- White in colour making it suitable for light and translucent natural stone
- Low VOC

PRODUCT INFORMATION

Product identifier	SikaTile®-405 Lite
Place of manufacture	Overseas
Product declaration	C2TES1 as per AS ISO 13007
Packaging	13.5kg paper bags
Shelf life	if unopened 12 months from date of manufacture
Storage conditions	Store in dry cool conditions, off ground out of direct sunlight. High humidity will reduce shelf life.
Bulk density	853kgs per m ³

APPLICATION INFORMATION

Mixing ratio	6 - 7 Litres of water per 13.5 kg bag	
Consumption	Notched trowel size	Approximate coverage per bag
	6mm	11m ²
	10mm	6.5m ²
Coverage shall be used as a guide only due to surface profile and application technique.		
Pot Life	2.5 hours at 23°C and 50% relative humidity.	
Open Time	30 minutes at 23°C and 50% relative humidity.	
Applied product ready for use	Application	Approximate wait time
	Grouting / Light foot traffic	24 hours
	Wet area service	3 days
	Full service	3-5 days
Values determined at laboratory conditions: 23°C, & 50% RH. Higher temperatures will reduce wait times and lower temperatures will increase wait times. Site condition will impact wait times.		

MANUFACTURER AND IMPORTER INFORMATION

Manufacturer information	Address	Sika Australia Pty Ltd 55 Elizabeth St Wetherill Park, Sydney NSW, Australia
Importer information	Address	Sika (NZ) Limited 85-91 Patiki Road Avondale, Auckland 1026 New Zealand
	Phone number	0800 745 269
	Website	https://nzl.sika.com/
	Email address	info@nz.sika.com
	NZBN	9429000018791

BUILDING CODE INFORMATION

Building Code clauses	Note: This product, on its own, is not within the scope of the NZ Building Code. However, when it is used as part of an impervious floor or wall lining system (E3/AS1) or with other building elements that must comply with the NZ Building Code, and it is used in accordance with that material supplier's specification and Sika's technical literature, it will contribute to meeting the requirements of the following clauses:
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B1 Structure: Performance clauses B1.3.1, B1.3.2, B1.3.3 (a, b, j, q), B1.3.4

B2 Durability: Performance clause B2.3.1 - (b) 15 years

E3 Internal Moisture: Performance Clauses E3.3.3, E3.3.4, E3.3.5, E3.3.6

F2 Hazardous Building Materials: Performance clause F2.3.1

Building Code compliance statements

Performance B1.3.1, B1.3.2, B1.3.3 (a, b, j, q) B1.3.4: When used as an adhesive this product contributes to meeting the loading requirements that bonded lining elements are subjected to, as a result of self-weight, imposed in-use gravity loading, impact, and the effects of creep and shrinkage over time.

Performance B2.3.1 (b) 15 years: This product has been evaluated in accordance with B2/VM1. It meets this durability requirement and will remain serviceable for 15 years, or more, when installed and maintained in accordance with the relevant Sika technical literature. nzl.sika.com. According to Sika's "Service Improvement" records, maintained within its ISO9001:2015 Quality Management System, this product has performed successfully since it was introduced in 2024.

Performance E3.3.3, E3.3.4, E3.3.5, E3.3.6: When this product is used as an adhesive to bond ceramic or stone tiles, with a maximum moisture content of 6%, onto a Sika liquid applied membrane, or as a grout between the tile joints, it contributes to meeting the Clause E3 Internal Moisture requirements for impervious linings, in accordance with E3/AS1

Performance F2.3.1: This product meets this requirement when used and applied in accordance with Sika's installation instructions and does not present a health hazard to people occupying or using the building. Refer to the Sika Product Technical Data sheet and product Safety Data Sheet nzl.sika.com for further information if required

BASIS OF PRODUCT DATA

All technical data in this document are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

IMPORTANT CONSIDERATIONS

- Application shall be undertaken in accordance with Australian Standards
- SikaTile®-405 Lite is not suitable for use with moisture sensitive stone.
- SikaTile®-405 Lite is not suitable for direct use over timber substrates, over sheet with a suitable underlay or screed.
- Mechanical fixing methods are recommended when used externally about 2.7 meters.
- Efflorescence is beyond the control of the manufacturer due to external influences beyond our control.
- SikaTile®-405 Lite is not suitable for direct application over solvent based coatings and membranes.
- Contact Sika Australia for further information or applications not mentioned in the document.

ECOLOGY, HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

DESIGN REQUIREMENTS

If the building elements to be bonded are within the scope of the NZ Building Code then the bonding instructions of the manufacturer / supplier of those elements must be followed

In accordance with NZBC E3 Internal Moisture and with reference to E3/AS1 impervious linings and floor coverings, the adhesive for ceramic or stone tiles must be specified by the tile manufacturer (supplier) as part of their system deemed to be suitable for the required application.

EQUIPMENT

- Personal protective equipment
- mixing drill with stirring attachment
- Mixing buckets

SUBSTRATE QUALITY

- All substrates must meet minimum deflection requirement outlined in the Australia standards.
- Substrates must be properly cured, structurally sound, free from loose or friable particles, clean, dry and free from contaminants such as dust, dirt, oil, grease, curing compounds, laitance or efflorescence.
- Dependant on the substrate condition and contamination to be removed from the surface, perform adequate preparation techniques such as water blasting, scarification, or blast cleaning in order to remove all traces of any materials that could reduce the products adhesion to the substrate.
- Any small defects in surface variations in level, profile or around exposed aggregates for example, Surface correction use appropriate Sika MonoTop® repair mortar or Sikafloor®

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level range should be used. Cracks in substrates must be identified and sealed / treated appropriately. For areas that require a waterproofing membrane, a suitable Sika approved under-tile waterproof membrane should be used prior to tiling.

Concrete substrates

- Concrete shall be dry and adequately cured. Concrete shall be left with open surface - steel trowel finishes are generally acceptable if they accept water penetration.
- All traces of curing compounds, sealers, release agents, coatings, dust, dirt, oil, and any other contaminate that may inhibit the adhesion must be removed prior to tiling. Concrete must accept water and be free from laitance.

Cement Mortar Beds / Screeds

- Screeds shall be installed in accordance with Australian Standards.
- Early aged screeds shall be a minimum of 24 hours old per 40mm of thickness (at 22°C & 50% relative humidity).

Sheeted / Board substrates

All boards / sheets / underlays must be installed as per manufacturer's instructions and specifically designed for tiling.

SUBSTRATE PREPARATION

Substrate priming

Application	Primer
Porous substrates	SikaTile 010 Secure Prime
Non porous substrates	SikaTile 015 NPP

- Substrates that have a under-tile waterproofing membrane do not require a primer. Adhesive shall be applied direct to the waterproofing membrane.
- Other Sika branded porous primers designed for tiling applications may be used to prime substrates.
- Refer to specific primer details on the relevant product data-sheet.

MIXING

- Pour cool fresh water into a clean mixing container before slowly adding the adhesive powder.
- Mix with a mixing drill for approximately 2-3minutes to achieve a smooth lump free homogenous lump free mixture
- Allow the mixture to Stand for 5-10 minutes, then re-stir for an additional 2 minutes without adding any additional water.
- Restirring the mixture may be necessary during the adhesives pot-life.

APPLICATION

- Tiles shall be fixed in accordance with the relevant Australian standards.
- Ensure the backs of the tiles are clean and free from dust and contaminates.

- Apply the adhesive to the substrate with the appropriately sized trowel to achieve coverage requirement on both substrate and the back of the tile. Tiles may require "back-buttering" to achieve minimum coverage requirements.
- Apply the adhesive with the notched trowel in a single direction.
- Place the tile into the wet adhesive, break the ridges with the tile to fully bed the tile into the adhesive. It is advisable to periodically check the back of the tiles to ensure adequate adhesive coverage is achieved in accordance with Australian Standards.
- Only apply as much adhesive that can be covered by the tiles prior the adhesive skinning. If skinning occurs prior to placement of tiles remove and replace.
- Remove any excess adhesive from the face of the tiles with a damp sponge and ensure grout joints are clean and free from excess adhesive and uniform depth.

CLEANING OF EQUIPMENT

Tools and equipment can be cleaned with water while the adhesive is still wet.

MAINTENANCE REQUIREMENTS

The building element being bonded, and the bonding substrate must both be maintained in accordance with each of their manufacturers instructions

For maintenance of impervious wall and floor lining systems that have been installed to enable compliance with Clause E3/AS1, refer to the supplier of the system installed

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 the 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 written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. 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. It may be necessary to adapt the above dis-

claimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.

The building product/building product line is not subject to warning or ban under section 26 of the Building Act 2004.

Sika (NZ) Limited

85-91 Patiki Road
Avondale, Auckland 1026
New Zealand
0800 745 269
www.sika.co.nz

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