

METHOD STATEMENT

SIKALASTIC®-1 KMY

USES: WATERPROOFING FOR SWIMMING POOL USING
SIKALASTIC®-1 KMY UNDERNEATH TILING WORK

SIKA LIMITED (VIETNAM)

1 SCOPE

This method statement describes the step by step application of waterproofing mortar for swimming pool using Sikalastic®-1 KMY underneath tiling work.

2 PRODUCTS DESCRIPTION

Sikalastic®-1 KMY is a one component, flexible, fiber-reinforced mortar, based on cement modified with special alkali-resistant polymers. It also contains fine fillers, selected graded aggregates, plus special waterproofing additives to produce a flexible mortar that is ideal for waterproofing surfaces subject to flexural strain.

Uses

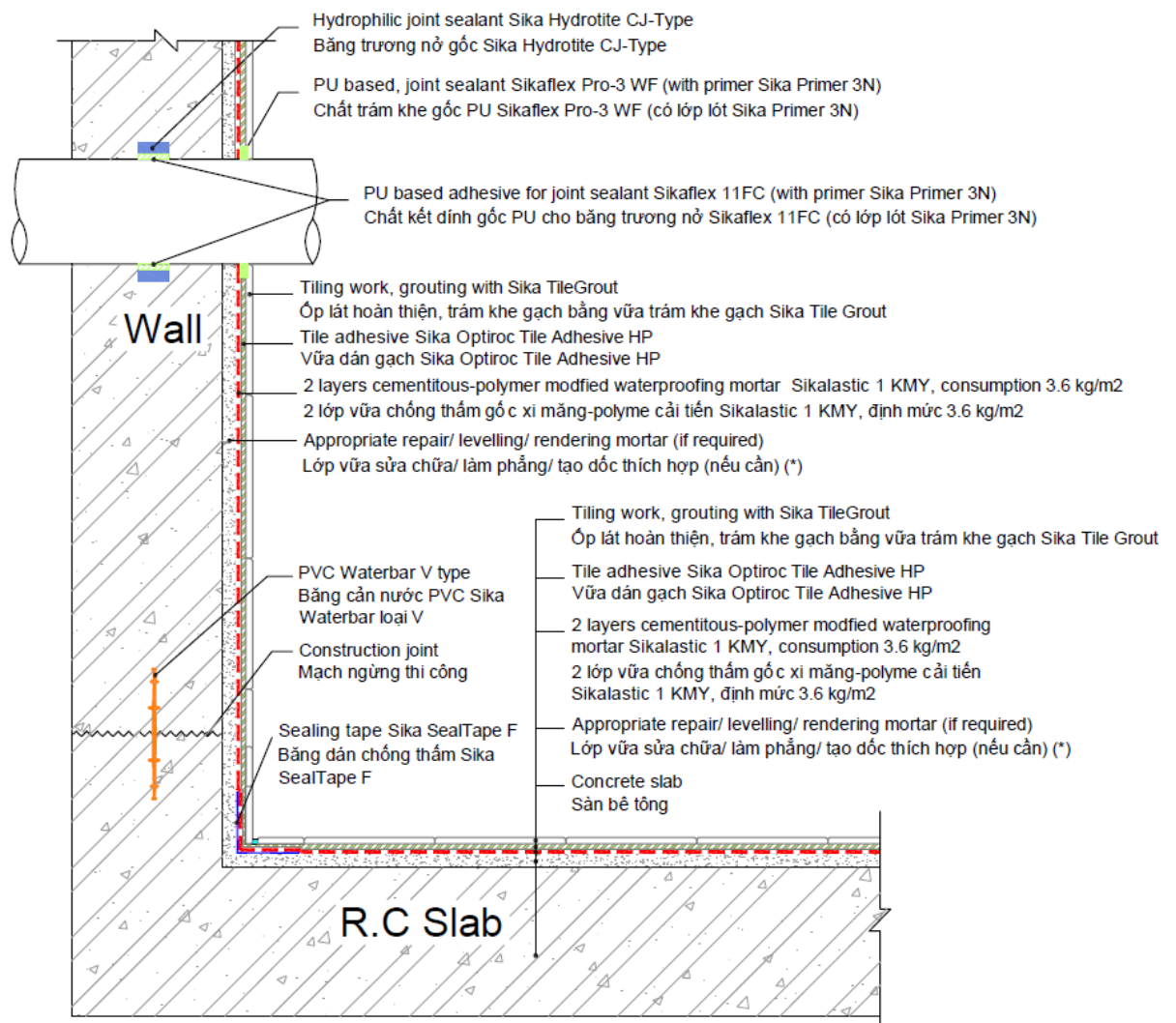
Sikalastic®-1 KMY can be used for many application such as:

- Waterproof protection of concrete structures including tanks, basins, pipes, swimming pools
- Waterproofing external wall surfaces to be backfilled in the ground
- Internal waterproofing of walls and floors, in basements, etc.
- Waterproofing of terraces and balconies over concrete or prepared existing tiles
- General waterproofing of concrete surfaces

Characteristics/ Advantages

- Good adhesion even on mat-damp surfaces.
- Easy to apply by brush, roller or trowel
- Can be applied on damp substrate
- Good sag resistance and easy to apply on vertical surfaces
- Flexible crack-bridging properties
- Very good adhesion to most common substrates (concrete, cementitious mortar, stone, bricks, ceramic and timber)
- Mixing ratio can be adjusted in order to obtain the consistency and workability

3 TYPICAL SYSTEM BUILD-UP



(*): Please refer to concrete repair product range or contact to Sika Technical Department for more information

Typical System Build-up

4 APPLICATION

4.1 Substrate Quality

- The substrate must be structurally sound, free of cement laitance, clean and free from dirt, oil, grease or other contaminants. Loose or friable particles must be removed.
- Remove all previous coatings, any traces of grease, rust, release agents, cement laitance and any other material which could reduce adhesion, by means of blast cleaning, high-pressure water-jetting (150 – 200bar), wire brushing, grinding and abrading of ceramic tiles etc. All dust deposits must also be removed by vacuum or any other appropriate method.
- The substrates can be dry or damp. Do not apply Sikalastic®-1 KMY on substrates with stagnant water or water ponding and substrates where condensation is likely to occur. All joints, pipe penetrations and outlets/inlets in the structure must also be sealed and made watertight.

4.2 Pre-Treatment/ Levelling / Rendering Mortar (if required)

a. Repairing works

- Using appropriate Sika repair product range (Sika Monotop®, Sikadur®, SikaGrout®, etc.) to repair concrete substrate defects such as cracks, voids, honeycombs (if any). Refer to relevant PDS for more information.
- All connections between the substrate and pipe entries, plant and equipment, light switches etc., must be sealed and watertight.

b. Levelling/ Rendering works

- When required to provide a smooth and level surface, leveling screed or render (with minimum compressive strength 7.5 Mpa - at 28 days) shall be placed before the application of the waterproofing compound.
- The preparation and application of these levelling compounds shall be performed according to the state of the art.

In particular, to improve adhesion, a bonding bridge using Sika Latex shall be used. Typical design of such bonding bridge slurry as below:

- 1 ltr Sika Latex + 1 ltr Water + 4 kg cement = slurry consistency
- Coverage: the above slurry covers approx. 4 m²

Mix the dry cement sand to gauging Sika Latex solution until brushable consistency. Apply the bonding bridge using a stiff brush. Work well the slurry onto the substrate.

- Subsequent application (levelling screed/render) shall be carried out while the bonding bridge is still tacky – wet on wet.
- After placing the leveling screed/render, cure properly the freshly placed mortar with wet hessian. Do not use curing compound as this might result in adhesion failure of the waterproofing compound.
- Maintain the wet curing for a period of at least 7 days.

4.3 Application of waterproofing layer Sikalastic®-1 KMY

a. Mixing

- Sikalastic®-1 KMY should be mechanically mixed using a forced-action mixer or in a clean drum using a low speed electric drill and paddle mixer (maximum 500 r.p.m.).

- Mix slowly by adding Sikalastic®-1 KMY into the water , for quantity of water, see the mixing ratio as follows:

Application by roller	~7.0 L water per 20 kg bag
Application by brush	~6.0 L water per 20 kg bag
Application by trowel	~4.4 L water per 20 kg bag

- Once a homogeneous mix is obtained, continue to mix for another 3–4 min. The mortar must be completely homogeneous and free from lumps.
- DO NOT ADD ANY OTHER ADDITIVES!
- Mix the whole bag, in order to avoid any inadequacy in the distribution of the constituents.
- Do not use a free-fall mixer to mix Sikalastic®-1 KMY.

b. Application

- Surfaces have to be thoroughly saturated with water prior application of first coat of Sikalastic®-1 KMY, but no standing water.
- Whilst the substrate is still damp from saturation, apply the first coat at consumption of approx. 1.2 kg/m².
- Leave to harden for approximately 4-8 hours at the temperatures above 20°C before applying the second coat at consumption of approx. 1.2 kg/m² in crosswise direction to the first application.
- Apply the third coat at consumption of approx. 1.2 kg/m² in crosswise direction to the second application.
- For floor applications, to avoid risk of damage to the first coat, it is recommended that the second coat be applied after 24 hours. If the second coat is applied 12 hours or later, the slightly pre-wetted, preferably using a fine spraying.

Notes: please conduct the trial area first before actual application on big area.

- At floor joints and other critical areas (for example, any junctions with vertical surfaces), the watertightness shall be reinforced by using Sika® SealTape F. Sika® SealTape F must be fixed directly onto the first coat of Sikalastic®-1 KMY whilst it is still wet, and then covered by a second coat of Sikalastic®-1 KMY.

c. Curing/Treatment

- Generally, treatment process is not required but precautions should be taken.
- Avoid application under direct sun light, rain and/or strong wind.
- It is essential to cure Sikalastic®-1 KMY immediately after application for a minimum of 3 to 5 days to ensure full cement hydration and to minimize cracking. Use polythene sheeting or similar approved methods.
- Further treatment (e.g. tiling works) shall be carried out after a waiting period of at least 7 days at 20°C.

d. Tiling works

- Tiling works shall be proceed using tile adhesives that is suitable for pool such as Optiroc Tile Adhesive HP.
- Grouting work shall be proceed using tile grout that is suitable for pool such as Sika® Tile Grout/ Optiroc Color Grout.
- Tiling works shall be carried out according to the latest state of the art.

e. Detailing

Generally, failures in waterproofing system occur at details such pipe penetration, anchor, gully etc... So a particular attention shall be given and guideline provided in the enclosed drawings shall be followed.

Please refer to relevant PDS for more information.

DISCLAIMER

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.

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