

PRODUCT DATA SHEET

Sikalastic®-1 KMY

ONE COMPONENT FIBER REINFORCED, FLEXIBLE CEMENTITIOUS WATERPROOFING COMPOUND

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

- 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
- Compatible with SikaCeram® series, tiling system

CHARACTERISTICS / ADVANTAGES

- 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

APPROVALS / STANDARDS

- SPAN Approval: SPAN/BPI/1683-2016 (Potable Water)
- SINGAPORE GREEN LABEL: 032-118-3205 "Environmentally Preferred Coating"

PRODUCT INFORMATION

Chemical Base	Cement modified with polymers, selected aggregates, admixtures, additives and fibers.
Packaging	<ul style="list-style-type: none"> ▪ 20 kg bag ▪ 2 pack x 6 kg in pail
Appearance / Colour	Grey powder
Shelf Life	6 months from date of production
Storage Conditions	Store properly in dry conditions, in undamaged and unopened, original sealed packaging. Protect from direct sunlight, rain and water. Not sensitive to frost.
Density	Fresh mortar density: ~1.5 kg/l (at + 25 °C)

TECHNICAL INFORMATION

Tensile Strength	2.0 N/mm ²	(ASTM D412)
Elongation at Break	> 23 %	(ASTM D412)
Tensile Adhesion Strength	On concrete, 28 days Dry substrate	1.3 – 1.5 N/mm ² (ASTM D 7234-12, 20 mm Ø dolly)
Crack Bridging Ability	> 0.50 mm (Class A 3, +23 °C) ≥ 0.75 mm (+23 °C)	(EN 1062-7) (EN 14891 A.8.2)

APPLICATION INFORMATION

Mixing Ratio	Application by roller	~7.0 L water per 20 kg bag / ~2.1 L water per 6 kg bag
	Application by brush	~6.0 L water per 20 kg bag / ~1.8 L water per 6 kg bag
	Application by trowel	~4.4 L water per 20 kg bag / ~1.3 L water per 6 kg bag
	Consumption	
This depends on the substrate roughness; as a guide, ~1.0 kg/m ² /mm Sikalastic®-1 KMY must be applied in minimum 2 coats Wet areas such as toilets, balconies: 2.0 kg/m ² Critical areas such as swimming pools, ponds: 3.0 kg/m ²		
Ambient Air Temperature	+5 °C min. / +40 °C max.	
Substrate Temperature	+5 °C min. / +40 °C max.	
Pot Life	~30 minutes (at +23 °C)	
Waiting Time / Overcoating	Sikalastic®-1 KMY must be completely hardened before over-coating or water contact.	
	Guide for waiting times at the following temperatures:	
	+20 °C	
	Horizontal covering by tiles	~2 days
	Vertical covering by tiles	~2 days
	Water emulsion coating	~2 days
	Immersion in water	~2 days
	Contact with drinkable water	~15 days
Times will vary due to ambient and substrate humidity.		

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY / PRE-TREATMENT

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 blastcleaning, high-pressure water-jetting (150–200 bar), wire brushing, grinding and abrading of ceramic tiles etc. All dust deposits must also be removed by vacuum or any other appropriate method.

Repair concrete substrates, if deemed necessary, with an appropriate cementitious mortar from the SikaTop® or Sika MonoTop® range of repair materials.

All connections between the substrate and pipe entries, plant and equipment, light switches etc., must be sealed and watertight. Use covered details at the floor/wall junctions made from SikaTop® or Sika MonoTop® mortars, for optimal waterproofing performance.

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.

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 the quantity of water, see mixing ratio). 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.

APPLICATION

Trowel

Maintain an even pressure onto the substrate's surface to ensure a uniform distribution and thickness of Sikalastic®-1 KMY. Trowel in two directions (at right angles). Maximum recommended thickness is 2 mm per coat. The final thickness when applied by trowel will depend on the method of application and level or grade of exposure / waterproofing required. The highest waterproofing performance is obtained by applying Sikalastic®-1 KMY using a trowel in at least 2 coats, to a total thickness of 3–4 mm.

*Spray application is applicable with the correct equipment. Please consult Sika's representative for more information.

Brush or Roller

Application by brush or roller must be undertaken with maximum attention to completely cover the substrate's surface uniformly. Brush or roll in two directions (at right angles). The maximum recommended thickness for these method of application is 1 mm per coat. In these situation, the application of min. 2–3 coats is required.

Joints / Critical areas

At floor joints and other critical areas (for example, any junctions with vertical surfaces), the watertightness can 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.

CURING TREATMENT

Generally not required but precautions should be taken for applications done directly under sunlight and windy condition.

CLEANING OF TOOLS

Clean all tools and application equipment with clean water immediately after use. Hardened or cured material can only be removed mechanically.

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LIMITATIONS

- Avoid application under direct sun light, rain and/or strong wind. Setting time can be influenced by high relative humidity, particularly in closed rooms or basement. Adequate ventilation is recommended when applying Sikalastic®-1 KMY.
- Protect from rain for at least 24–48 h after application.
- If a solvent based paint must be painted on Sikalastic®-1 KMY, carry out preliminary testing in order to ensure the solvents do no damage the waterproofing layer.

BASIS OF PRODUCT DATA

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

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

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.

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.

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