

PRODUCT DATA SHEET

SikaFill®-100

ELASTIC WATERPROOFING COVERING FOR ROOFING



DESCRIPTION

SikaFill®-100 is a 1-component, coloured, water based, elastic coating in the form of emulsion, featuring creamy consistency, based on styrene-acrylic copolymers. After curing it forms a flexible, long term resistant waterproofing membrane.

USES

- Waterproofing of roofs on various substrates, such as fibre reinforced mortars, zinc, aluminium, wood, bricks, mortars, roof tiles, concrete, bituminous felts with aluminium as final coating, e.t.c.
- Protection of partition walls against surface water filtrations: Vertical side walls, pipings, bridging of joints and fissures, zinc eave gutters, treatment of meeting points in chimneys e.t.c.

For application on PVC or polyester substrates and/on painted substrates, it is advisable to carry out previous on-site tests to determine compatibility and whether it is necessary to carry out a sanding beforehand.

CHARACTERISTICS / ADVANTAGES

- Impermeable against rain and splashes
- Highly elastic
- Resistant against weather ageing
- Easy application with traditional methods (cold applied)
- Good penetration to substrate
- Substrate micro-crack bridging
- Good adhesion to various substrates
- Water based, non-toxic, non-flammable

APPROVALS / CERTIFICATES

Complies with Standard UNE 53.413, "Flexible coatings based on polymers in aqueous dispersion, without reinforcement, for waterproofing "in situ" in the building", applicable to vertical walls.

Using appropriate synthetic fabric reinforcement complies with Standard UNE 53.410, "Flexible sheets for "in situ" application based on copolymers in aqueous dispersion, with reinforcement, for waterproofing in buildings".

CE-marking and Declaration of Performance as Liquid-applied roof waterproofing kit based on polymers in water dispersion according to ETAG 005-8:2000, based on certificate of factory production control issued by notified factory production control certification body and type testing.

PRODUCT INFORMATION

Composition	Styrene-acrylic copolymers in water
Packaging	5 kg and 20 kg containers
Colour	Emulsion / White, grey, terracotta
Shelf life	12 months from date of production

Storage conditions	Stored in undamaged and unopened, original, sealed containers. Store in cool and dry conditions. Protect from frost and direct sunlight.	
Density	~ 1,3 kg/l	
Tensile Strength	~ 10 kg/cm ²	(UNE 53165)
Elongation at Break	~ 350%	(UNE 53165)
Resistance to Static Puncture	≥ 500 mm height drop	(UNE 53358)
Foldability at Low Temperature	No cracks	(UNE 53358)
Temperature Resistance	Mass loss* < 10% Elongation loss* < 35% * Behaviour after thermal ageing	(UNE 53358)
Artificial Ageing	Elongation loss < 40% 1000 h at 70 °C	(UNE 53104)
Solar Reflectance	0,81 Initial, white	(ASTM E 903-12 / ASTM G 159-98)
Thermal Emittance	0,84 Initial, white	(ASTM C1371-04a)
Solar Reflectance Index	100 Initial, white	(ASTM E 1980-1)

SYSTEMS

System Structure	<p><i>For applications on vertical side walls:</i> Primer: 1 x SikaFill®-100 diluted (for very porous substrates) Coating: 2 x SikaFill®-100</p> <p><i>For applications on roofs:</i> Primer: 1 x SikaFill®-100 diluted (for very porous substrates) Coating: 1-2 x SikaFill®-100 (2 coatings in cases of Sika® Fibernet embedding for reinforcement)</p> <p><i>For application on roofs (increased mechanical resistance system, 1,9 mm thickness)</i> Primer: 1 x SikaFill®-100 diluted with water at a ratio of 80:20 1st coating: 1 x SikaFill®-100 (consumption ~ 1,5 kg/m²) Reinforcement: Sikalastic® Fleece-120 2nd coating: 1 x SikaFill®-100 (consumption ~ 1,0 kg/m²)</p>
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APPLICATION INFORMATION

Yield	<p>On roofs and terraces: 1 - 2 kg/m² in one or two layers, depending on the substrate</p> <p>On vertical side walls: at least 1 kg/m² applied in two layers</p> <p>These figures are theoretical and do not allow for any additional material due to surface porosity, surface profile, variations in level and wastage, e.t.c.</p>
Ambient Air Temperature	Min. +5 °C / Max. +35 °C
Relative Air Humidity	75% max.
Substrate Temperature	Min. +5 °C / Max. +35 °C
Dew Point	<p>Beware of condensation!</p> <p>The substrate and uncured membrane must be at least 3°C above the dew point to reduce the risk of condensation or blooming on the membrane finish.</p>

Drying time

Touch dry: After ~ 2 hours (at 20 °C)

Complete drying: After ~ 3-5 hours (at 20 °C)

Note: Values are indicative and can be affected by environmental conditions.

APPLICATION INSTRUCTIONS

EQUIPMENT

SikaFill®-100 can be mixed manually, but preferably stirred with a low speed mechanical stirrer or other equivalent equipment.

SUBSTRATE PREPARATION

The substrate must be clean, dry and free of all contamination such as dirt, oil, grease, coatings, e.t.c. which prevent adhesion.

The substrate must be sound and of sufficient strength.

If in doubt, apply a test area first.

Weak concrete must be removed and surface defects such as blowholes and voids must be fully exposed. Repair the substrate, using appropriate Sika Mono-Top® or SikaRep® repair mortars.

All dust, loose and friable material must be completely removed from all surfaces before application of the product, preferably by brush and/or vacuum.

MIXING

Mix SikaFill®-100 prior to its use until it becomes completely homogeneous.

Overmixing must be avoided in order to minimize air entrapment.

APPLICATION

The application can be carried out using short-haired wool roller, brush or airless spraying:

Using a short-haired roller or a brush, apply a layer of the product as a primer (dilute it with water at a ratio of 3 parts product:1 part water and mix it until it becomes completely homogeneous), ensuring that it penetrates well into the substrate.

Once the priming coat is dry (after approx. 12 hours, in normal conditions) apply successive layers of Sika-Fill®-100 until the desired film thickness desired is achieved. Before applying each layer, the previous one must have completely dried (full cure).

Depending on the uses, and in the case of requirements for embedding a reinforcement net, follow the instructions stated at "System Structure". Sika® Fiber-net must be placed on the first, still fresh, undiluted coat of SikaFill®-100 covering it with a second, undiluted layer of SikaFill®-100. The edges of Sika® Fiber-net must be overlapped between 3 and 5 cm.

CLEANING OF EQUIPMENT

Removal of fresh remnants from tools and application equipment can be carried out using water immediately after use. Hardened material can only be mechanically removed.

IMPORTANT CONSIDERATIONS

- The product forms a final, finishing layer. Surface irregularities and areas with standing water must be repaired with appropriate repairing mortars before the application of SikaFill®-100.
- SikaFill®-100 coating should not be covered (it is a final layer).
- SikaFill®-100 is not recommended for permanent contact with water, either due to condensation, or due to roof inclination.
- SikaFill®-100 is not recommended for submerged applications.
- At least 2 coats must be applied on the primer.
- In case a membrane with higher mechanical resistance is required, embed Sika® Fiber-net or Sikalastic®-120 Fleece to the fresh coat of SikaFill®-100 according to the directions stated above.
- Do not place piercing objects on the coating (nails, e.t.c.).
- In order to obtain adhesion on bituminous sheets with an anti-adhesive polyethylene film, prior to the application of SikaFill®-100, the film must be burned and dry quartz sand must be applied, while the bituminous coating is still tacky.

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.

Sika Hellas ABEE

15 Protomagias Str.
14568 Kryoneri
Attica-Greece
Tel.: +30 210 8160 600
Fax: +30 210 8160 606
www.sika.gr | sika@gr.sika.com



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