

PRODUCT DATA SHEET

SikaFill®-100 (BH)

ELASTIC, LIQUID APPLIED, ACRYLIC WATERPROOFING COATING

DESCRIPTION

SikaFill®-100 (BH) is a one component, liquid elastic waterproofing coating, based on styrene-acrylic copolymers in aqueous dispersion. Once dried, SikaFill®-100 (BH) forms a flexible, waterproofing and lasting membrane.

Suitable for use in hot and tropical climates.

USES

SikaFill®-100 (BH) can be used in different applications such as:

- For cost efficient life cycle extension of failing exposed roofs
- For reflective coating to enhance energy efficiency by reducing cooling costs

CHARACTERISTICS / ADVANTAGES

- Waterproof
- Excellent weathering and aging properties.
- Easy to apply by traditional methods eg. brush
- Good penetration in cracks and fissures.
- Able to absorb expansion and shrinking movements without cracking
- Good bonding to many substrates
- Water based

PRODUCT INFORMATION

Composition	Acrylic Dispersion
Packaging	~20 kg pails
Colour	White, liquid form
Shelf life	12 months minimum from date of production if stored properly in original, unopened and undamaged sealed packaging.
Storage conditions	Store in dry conditions in original packaging at temperatures between +5 °C and +30 °C. Protect from direct sunlight and frost.
Density	~1.25 kg/l
Solid content by weight	~50 %

TECHNICAL INFORMATION

Tensile Strength	~1.0 N/mm ² (28 days)	(ISO 37)
Elongation at Break	~1400% (28 days)	(ISO 37)

Service Temperature	-10 °C min. / +80 °C max. (with reinforcement)
	-5 °C min. / +80 °C max. (without reinforcement)

APPLICATION INFORMATION

Ambient Air Temperature	+8 °C min. / +40 °C max.
Relative Air Humidity	80 % max.
Substrate Temperature	+8 °C min. / +40 °C max.
Dew Point	Beware of condensation. Surface temperature during application must be at least +3 °C above dew point.
Substrate Moisture Content	< 6 % moisture content. No rising moisture according to ASTM (Polyethylene-sheet). No water / moisture / condensation on the substrate.

Substrate Pre-Treatment	Substrate	Primer	Consumption [kg/m²]
	Cementitious substrates	SikaFill®-100 (BH) diluted with water.*	~0.3
	Brick and Stone	SikaFill®-100 (BH) diluted with water.*	~0.3
	Bituminous felt	SikaFill®-100 (BH) diluted with water.*	~0.2 - 0.3
	Metals (Ferrous or galvanised metals, lead, copper, aluminium, brass or stainless steel)	Sikalastic® Metal Primer or SikaFill®-100 (BH) diluted with water*. Please consult with our Technical Services Department prior to use.	~0.2 - 0.3
	Paints	SikaFill®-100 (BH) diluted with water* subject to adhesion and compatibility tests.	~0.3

*Dilute 3 parts of SikaFill®-100 (BH) (by volume) with 1 part of water and mix until a homogeneous mixture is achieved. These figures are theoretical and do not include for any additional material required due to surface porosity, surface profile, variations in level and wastage etc

Waiting Time / Overcoating	Before applying SikaFill®-100 (BH) on primer SikaFill®-100 (BH) diluted with water:			
	Substrate Temperature	Relative humidity	Minimum	Maximum¹⁾
	25 °C	50 %	~5 h	3 months
	Before applying the base coat of SikaFill®-100 (BH) on the second coat of SikaFill®-100 (BH) allow intermediate coats to fully cure.			
	Substrate Temperature	Relative humidity	Minimum	Maximum¹⁾
	25 °C	50 %	~5 h	3 months

¹⁾ Assuming that all dirt has been removed and intercoat contamination is avoided.

Note: Times are approximate and will be affected by coating thickness and changing ambient conditions particularly temperature and relative humidity. Low temperature and high humidity retard curing, while high temperatures and low humidity accelerate curing progression.

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

All substrates must be cleaned and prepared using high pressure water jet. Abrasive blast cleaning, scari-fying equipment to or other suitable approved mech-

anical methods.

Cementitious substrates:

New concrete should be cured for at least 28 days and should have a pull-off strength ≥ 1.5 N/mm².

Loose friable material and weak concrete must be completely removed by mechanical means to achieve an open textured surface and all surface defects such

as blowholes and voids must be fully exposed. Repairs to the substrate, filling of joints, blowholes/voids and surface leveling must be carried out using the appropriate Sika® products. Refer to Sika's Technical Department for further advice. High spots must be removed by for example grinding. Outgassing is a naturally occurring phenomenon of concrete that can produce pinholes in subsequently applied coatings. The concrete must be carefully assessed for moisture content, air entrapment, and surface finish prior to any coating work. Installing the SikaFill®-100 (BH) either when the concrete temperature is falling or stable can reduce outgassing. Prime the substrate before applying the SikaFill®-100 (BH) systems.

Brick and stone:

Mortar joints must be sound and flush pointed. Use localised reinforcement over connection joints and prime before applying SikaFill®-100 (BH).

Bituminous felt:

Ensure that Bituminous felt is firmly adhered or mechanically fixed to the substrate.

Bituminous felt should not contain any badly degraded areas and be primed before applying SikaFill®-100 (BH).

Metals:

Metals must be in a clean sound rust free condition. Metals surfaces must be free of oil and greases. Abrade exposed surfaces to reveal bright metal. Use localised reinforcement over joints and fixings.

Paints/Coatings:

Ensure the existing material is sound and firmly adhered.

Remove any oxidized layers and use localised reinforcement over joints.

Existing SikaFill®-100 (BH) Systems:

The existing SikaFill®-100 (BH) Systems should still be soundly adhered to the substrate be clean, dust free and dry.

MIXING

Prior to application, stir SikaFill®-100 (BH) thoroughly for 1 minute in order to achieve a homogeneous mixture using a slow speed (330 - 500 rpm) drill and basket type paint mixer.

Over mixing must be avoided to minimise air entrainment.

APPLICATION

Prior to the application of SikaFill®-100 (BH) the priming coat must have cured tack-free. Protect adjacent areas from splashes, over painting, damage etc. with an adhesive tape or plastic.

SikaFill®-100 (BH) is applied in 2 – 6 coats as per the required system. Prior to the application of each coat the indicated waiting times must be followed.

Sikalastic® Flexitape Heavy or Sika® Reemat Premium is applied at areas having high movements, irregular substrate or to bridge cracks, joints and seams on the substrate.

Please note, always begin with detailing works prior to waterproofing the horizontal surface.

Tools:

High Pressure Jet Washer (minimum 150 bar):

If dust, vegetation, moss / algae or other contaminants are present on the existing roof, a power washer is required to clean the substrate prior to the application of SikaFill®-100 (BH) Systems. Existing chippings should be removed by hand or scabbling prior to power washing.

Squeegee:

Useful when removing excess water from the roof after overnight rain

Drill and paddle:

SikaFill®-100 (BH) should be mixed for one minute using a slow speed (300-500 rpm) drill and basket type paint mixer.

Solvent resistant short-piled roller:

Used in the application of SikaFill®-100 (BH) to ensure a consistent thickness of the seamless SikaFill®-100 (BH) systems.

Thick hair brush:

For application of SikaFill®-100 (BH) to all details and penetrations.

Note: Please refer to the most recent issue of the specific Method Statement

CLEANING OF EQUIPMENT

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

IMPORTANT CONSIDERATIONS

Do not apply SikaFill®-100 (BH) on substrates that have rising moisture.

Always apply during falling ambient and substrate temperature. If applied during rising temperatures "pin holing" may occur from rising and expanding air. SikaFill®-100 (BH) may be flood tested when fully cured using 50 millimeter depth of water for a maximum period of 24 hours.

Ensure that each coat of SikaFill®-100 (BH) is totally dry and the surface is without pinholes before applying further coats.

Do not apply SikaFill®-100 (BH) if inclement weather such as rain, fog or extreme humidity (80 % maximum) causing condensation is expected. Ensure that the applied SikaFill®-100 (BH) has sufficient curing time (see curing times above) before any such inclement weather is expected.

Do not allow temporary ponding or moisture (Dew, Condensation etc) to remain between coats on any horizontal surfaces or until the final coating has totally cured. Brush or mop surface water away during this time.

It is recommended to carry out Adhesion and Compatibility tests with the Primer prior to application of following coats.

SikaFill®-100 (BH) should not be applied on roofs subject to long-term ponding water especially with subsequent periods of frost.

In cold climatic zones for Roofing structures with a pitch of less than 3 % appropriate drainage measures must have to be considered.

Do not apply SikaFill®-100 (BH) directly on insulation boards. Instead use a separation layer like Sikalastic®-Carrier between insulation board and SikaFill®-100 (BH).

Sikalastic® Flexitape Heavy or Sika® Reemat Premium can be applied at areas with high movements, irregular substrate or to bridge cracks, joints and seams on the substrate as well as for details.

Sikalastic® Flexitape Heavy or Sika® Reemat Premium can be used as total reinforcement or for partial reinforcements over dynamic cracks and joints.

SikaFill®-100 (BH) is not recommended for pedestrian traffic. In case pedestrian traffic is unavoidable, SikaFill®-100 (BH) shall be covered with appropriate paving materials.

SikaFill®-100 (BH) is to be used mainly in exposed applications and is not for inverted buried systems.

SikaFill®-100 (BH) should not be subject to permanent water immersion.

Whilst SikaFill®-100 (BH) is resistant to most commonly encountered atmospheric pollutants, proprietary cleaning solutions and environmental spoilage, the suitability of the product for use in applications with increased chemical resistance requirements should first be established in consultation with our Technical Department.

Overcoating SikaFill®-100 (BH) after 3 months exposure, requires adhesion tests.

BASIS OF PRODUCT DATA

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

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.

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 NORTHERN GULF

Bahrain / Qatar / Kuwait
Tel: +973 177 38188
sika.gulf@bh.sika.com
gcc.sika.com

SIKA SOUTHERN GULF

UAE / Oman / SIC
Tel: +971 4 439 8200
info@ae.sika.com
gcc.sika.com

SIKA SAUDI ARABIA

Riyadh / Jeddah / Damman
Tel: +966 11 217 6532
info@sa.sika.com
gcc.sika.com



ISO 9001: Sika UAE LLC,
Sika Gulf B.S.C. (c),
Sika Saudi Arabia Co. Ltd,
Sika Qatar LLC
ISO 14001: Sika UAE LLC,
Sika Gulf B.S.C. (c),
Sika Saudi Arabia Co. Ltd
OHSAS: Sika UAE LLC,
Sika Gulf B.S.C. (c)

All products are supplied
under a management
system certified to conform
to the requirements of the
quality, environmental and
occupational health &
safety standards ISO 9001,
ISO 14001 and OHSAS
18001.

Product Data Sheet

SikaFill®-100 (BH)

May 2018, Version 02.01

020915101000000065

SikaFill-100BH-en-AE-(05-2018)-2-1.pdf

