BUILDING TRUST

PRODUCT DATA SHEET

SikaScreed®-20 EBB

Epoxy Bonding Agent for SikaScreed® Floor Screeding Systems

PRODUCT DESCRIPTION

SikaScreed®-20 EBB is a two-part, epoxy-based, moisture-tolerant bonding agent for SikaScreed® Floor Screeding Systems.

USES

SikaScreed®-20 EBB is used as a:

- Bonding agent for SikaScreed® Floor Screeding Systems.
- Damp Proofing Membrane (DPM) - two coats required.
- Barrier to moisture and gases (e.g. methane).

Please note:

- The Product may only be used by experienced professionals.

CHARACTERISTICS / ADVANTAGES

- Easy to mix and apply
- Different coloured parts (for mixing control)
- Suitable for dry and matt damp concrete surfaces
- High substrate adhesion strength
- Hardens without shrinkage
- Impermeable to liquids and water vapour
- High initial and ultimate mechanical strength
- Application ambient air temperature range +10 °C to +30 °C
- Good chemical resistance

ENVIRONMENTAL INFORMATION

- Environmental Product Declaration (EPD) in accordance with EN 15804. EPD independently verified by Institut für Bauen und Umwelt e.V. (IBU).

APPROVALS / STANDARDS

- Structural bonding products for use bonding of mortars or concrete according to EN 1504-4, declaration of performance 41536303 and provided with CE marking.
- Methane Permeability Testing Report according to ISO 15105-1, Report No.: LR2531, Issued by Versaperm.

PRODUCT INFORMATION

Chemical Base	Epoxy resin and special fillers	
Packaging	Container: Part A + Part B	5 kg, 15 kg or 30 kg containers
	Refer to the current price list for available packaging variations.	
Appearance / Colour	Part A	White
	Part B	Dark grey
	Cured colour	Concrete grey
Shelf Life	24 months from date of production	

Storage Conditions	The Product must be stored in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5 °C and +30 °C. Always refer to the packaging. Refer to the current Safety Data Sheet for information on safe handling and storage.

Density	Mixed Product	~1.4 kg/L	(EN ISO 2811-1)

TECHNICAL INFORMATION

Tensile adhesion strength	≥ 1.5 N/mm²	(EN 1542)
Permeability to methane	7.43 ml.mm/m².day NOTE: Gas Transmission Rate (GTR) of 7.43 ml.mm/m².day is an average of three readings.	(ISO 15105-1)

APPLICATION INFORMATION

Mixing Ratio	Part A : Part B (by weight)	2 : 1

Consumption	For substrate roughness up to 1.0 mm and normal absorbency: 0.6 to 1.0 kg/m². NOTE: Consumption data is theoretical and does not allow for any additional material due to surface porosity, surface profile, variations in level, wastage or any other variations. Apply the Product to a test area to calculate the exact consumption for the specific substrate conditions and proposed application equipment.

Layer Thickness	Maximum	~1.0 mm
Product Temperature	Maximum	+25 °C
	Minimum	+10 °C
Ambient Air Temperature	Maximum	+30 °C
	Minimum	+10 °C
Relative Air Humidity	Maximum	80 % r.h.

Dew Point	Beware of condensation. The substrate and uncured applied Product must be at least +3 °C above the dew point to reduce the risk of condensation or blooming on the surface of the applied product. Low temperatures and high humidity conditions increase the probability of blooming.

Substrate Temperature	Maximum	+25 °C
	Minimum	+10 °C

Substrate Moisture Content	The substrate must be dry or matt damp, with no standing water.

Pot Life (ISO 9514)

Temperature	Pot Life (200 g)
+10 °C	145 minutes
+20 °C	55 minutes
+30 °C	35 minutes

NOTE: Pot life begins when the resin and hardener are mixed.
NOTE: Pot life is shorter at high temperatures and longer at low temperatures.
NOTE: The greater the quantity of product mixed, the shorter the pot life.
NOTE: Apply the following methods for obtaining a longer pot life at high temperatures:
1. Divide the mixed product into smaller quantities.
2. Cool down parts A and B before mixing. Do not cool below +5 °C.

Waiting Time / Overcoating Maximum waiting time for 'wet-on-wet' application on the Product:

Temperature	Waiting Time
+10 °C	5 hours
+20 °C	2 hours
+30 °C	1 hour

If the maximum waiting time is exceeded, remove the Product before applying any further Product and prepare the substrate appropriately.
NOTE: Times are approximate and will be affected by changing ambient and substrate conditions.

VALUE BASE

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.

FURTHER DOCUMENTS

Reference must be made to the following Sika® Method Statements:

- Method Statement SikaScreed® HardTop- 60/70 Fast Screed Systems.
- Sika® Method Statement — Sikafloor® Mixing and Application.
- Sika® Method Statement — Evaluation and Preparation of Surfaces for Flooring Systems.

ECOLOGY, HEALTH AND SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY

Concrete and cementitious substrates must be older than 28 days, depending on any minimum strength requirements.
Cementitious substrates must be structurally sound and of sufficient compressive strength (minimum 25 N/mm²) with a minimum tensile strength of 1.5 N/mm².
The substrate must be sound, clean, free from all contaminants such as dirt, oil, grease, loose friable material, cement laitance, coatings and other surface treatments.

SUBSTRATE PREPARATION

For the application of SikaScreed®-20 EBB, prepare concrete and cementitious substrates to a minimum substrate roughness of 0.5 mm according to EN 1766 or ≥ CSP 3 (International Concrete Repair Institute) or equivalent.

1. Remove weak cementitious substrates and contaminants such as dirt, grease and oil.
2. IMPORTANT: The final texture of the substrate must be open-textured and gripping. Prepare cementitious substrates mechanically using abrasive blast cleaning, planing or scarifying equipment to remove cement laitance.
3. Pre-fill any surface voids with the SikaScreed® HardTop System in order to avoid excess thicknesses of the bonding agent in local areas.
4. Before applying the Product, remove all dust, loose and friable material from the application surface with an industrial vacuuming equipment.
5. For critical adhesion applications, perform preliminary site trials incorporating adhesion pull-off tests to confirm that substrate and Product tensile adhesion strengths are acceptable for the application.

MIXING

1. IMPORTANT: Mix full units only. Mix part A (resin) separately using a low-speed single-paddle electric stirrer (300–400 rpm) to mix liquid and all coloured pigment until the mixture achieves a uniform colour.
2. Add part B (hardener) to part A and mix both parts continuously for 3 minutes until the mixture achieves a uniform colour.
3. IMPORTANT: Avoid over-mixing to minimise air entrainment. Pour the materials into a clean container and mix again for at least 1 minute to achieve a consistent mix and to ensure thorough mixing. NOTE: Total mixing time is 4 minutes.
4. Scrape down the sides and bottom of the mixing container with a flat or straight edge trowel at least once to ensure complete mixing.

APPLICATION

IMPORTANT
Incorrect assessment of structural design load when using the Product for structural applications
For structural bonding, the Product is formulated to have low creep under permanent loading. However, due to the creep behaviour of all polymer materials under load, the long term structural design load must account for creep.

1. Generally, the long-term structural design load must be lower than 20–25 % of the failure load.
2. Consult a suitably qualified Structural Engineer for

load calculations for structural applications.

IMPORTANT

Excessive drying of the Product

The subsequent SikaScreed® System needs to be applied 'wet-on-wet'.

1. Observe pot life and waiting times.
2. Do not mix more Product than can be used for each area.
3. Remove any dried Product mechanically and replace it before applying the subsequent SikaScreed® System.

Preconditions

Any surface voids have been pre-filled with a SikaScreed® HardTop System.

Existing joints in the substrate must always be brought through the screed and appropriately formed and sealed as required.

1. Pour the mixed Product on to the prepared substrate, keeping the application area to 4 m², maximum.
   NOTE: The subsequent SikaScreed® System must be applied 'wet-on-wet'. Observe overcoating times.
2. Apply the Product evenly to the required thickness using a stiff bristle brush or broom. For dry substrates, alternatively apply by roller or spray application.
3. Ensure all areas of the substrate are fully covered. Work the material well into the substrate.
   NOTE: This especially applies to damp concrete or cementitious substrates.
4. Protect from damp, condensation and water such as rain before applying subsequent products.

CLEANING OF TOOLS

Clean all tools and application equipment with Sika® Thinner C immediately after use. Hardened material can only be removed mechanically.

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.

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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