



TERRIX Brick Slip System BSS-1

System
Specification
&
Installation
Manual

Thank you for choosing the Terrix® BSS-1 Brick Slip System.

With state-of-the-art technology and years of experience from our dedicated team, we are proud to offer you one of the most advanced systems available on the market. The Terrix® BSS-1 Brick Slip System delivers exceptional realism to the extent that distinguishing it from genuine brickwork is nearly impossible. The system is designed with materials that make it fire-resistant, waterproof, vapour-permeable, and durably bonded to the substrate, ensuring long-lasting performance.

In this document, you will find comprehensive information about the technical specifications of the Terrix® BSS-1 Brick Slip System, as well as detailed instructions for its installation. We are confident that our product will exceed your expectations, providing a superior solution for your cladding needs. The combination of innovative technology and expert craftsmanship delivers a high-quality, reliable, and aesthetically pleasing brick slip system that sets a new standard in the industry.

By choosing the Terrix® BSS-1 Brick Slip System, you elevated your project with a professional, technically advanced, and market-leading solution.





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1. System Components

The TERRIX Brick Slip System BSS-1 comprises a primer Terrix® BR-PR, Terrix® AD-BR - a polymer-based adhesive mortar that doubles as grout, and Terrix BR series brick slips.

This system is intended for installation as an external layer for all Terrix External Render Systems (TERRIX-ERS) and External Wall Insulation Systems (TERRIX-EWI). During the installation of the system, it is necessary to simultaneously refer to the documentation for the TERRIX BSS-1 system and the relevant documentation for the rendering or insulation system. However, the render primer and finish coat should be replaced with the Terrix BSS-1 system components.

System components		Usage per m ²	Thickness
Primer	Terrix® PR-BR ready-to-use primer (no water required), water-based, deeply penetrating. Reduces and evens the substrate's absorbency, decreases dustiness, and strengthens the base.	0.1-0.2l	/
Adhesive/grout	Terrix® AD-BR ready-to-use product contains quartz sand, water dispersions of synthetic resins, pigments, and performance-enhancing additives.	2.20 - 2.50kg	2mm
Brick Slip	Terrix BS-BR brick slips contain a binder based on waterborne polymer dispersion, specially selected quartz sand fillers, and natural, iron oxide-based pigments resistant to UV exposure.	66 pcs (standard size)	4mm
Ancillary materials	All additional materials, e.g. beads and tapes, will be supplied by the SYSTEM manufacturer.		

2. Intended use

TERRIX® BSS-1 is intended for use as an external cladding for Terrix ERS and EWI systems. The walls are made of masonry (bricks, blocks, stones...) or concrete (cast on-site or as prefabricated panels) with a reaction to fire classification A1 or A2-s2,d0 according to EN 13501-1 and a minimum density of 820 kg/m³ or A1 according to the EC decision 96/603/EC as amended.

TERRIX® BSS-1 is made of non-load-bearing construction elements. It does not contribute directly to the stability of the wall on which it is installed, but it can contribute to durability by providing enhanced protection from the effect of weathering.

TERRIX® BSS-1 can be used on new or existing (retrofit) vertical walls. It can also be used on horizontal or inclined surfaces not exposed to precipitation.

TERRIX® BSS-1 is not intended to ensure the airtightness of the building structure.

3. Characteristics of the product and methods of verification

3.1 General

The identification tests and the assessment of the fitness for use of TERRIX® BSS-1 according to the Essential Requirements were carried out in compliance with the "ETA Guidance No. 004"

3.2 System characteristics

3.2.1 Reaction to fire

The TERRIX® BSS-1 product has obtained a classification regarding reaction to fire of Class: A2-s1, d0."

Testing method and test number	Parameter	No of tests	Result	
			Continuous parameter - mean value (m)	conformity with the parameter
EN 13823:2020 154/21/KG/N	FIGRA _{0.2 MJ} [W/s]	3	70.88	n/a
	FIGRA _{0.4 MJ} [W/s]		79.09	n/a
	LFS < sample edge		n/a	yes
	THR _{600s} [MJ]		3.66	n/a
	SMOGRA [m ² /s ²]		0.00	n/a
	TSP _{600s} [m ²]		17.42	n/a
	burning droplets/particles		n/a	no
EN ISO 1716:2010 19/18/BC/N Terrix® PR-BR	heat of combustion [MJ/kg] [MJ/m ²]	3	33.96 0.07	n/a
EN ISO 1716:2010 14/18/BC/N Terrix® AD-BR	heat of combustion [MJ/kg] [MJ/m ²]	3	2.58 5.95	n/a
EN ISO 1716:2010 1/18/BC/N Terrix® BS-BR	heat of combustion [MJ/kg] [MJ/m ²]	3	2.58 10.89	n/a

3.2.2 Water absorption (capillary test)

Water absorption after 1 hour	<0.5kg/m ²
Water absorption after 24 hours	<0.5kg/m ²

3.2.3 Hygrothermal behaviour

Hygrothermal cycles have been performed on a rig.

None of the following defects occurred during the testing:

- blistering or peeling of any finishing,
- failure or cracking associated with joints between insulation product boards or profiles fitted with system,
- detachment of render,
- cracking allowing water penetration to the insulation layer.

TERRIX® BSS-1 System is assessed resistant to hygrothermal cycles.

3.2.4 Freeze/thaw behaviour

The water absorption of both base coats and the rendering systems are less than 0.5 kg/m² after 24 hours.

TERRIX® BSS-1 is assessed as freeze/thaw resistant.

3.2.5 Water vapour permeability

TERRIX® BSS-1 System

System components	Equivalent air thickness (m)
Terrix® PR-BR	≤ 1.0m,
Terrix® AD-BR	
Terrix® BS-BR	0.4m

3.2.6 Bond strength

Conditionings		
Initial state	After the hygrothermal cycles (on the rig)	After the freeze/thaw cycles (on samples)
≥ 0.08 MPa	≥ 0.08 MPa	≥ 0.08 MPa

3.2.7 Impact resistance

Category I

3.3 System Components' characteristics

3.3.1 Brick slip primer TERRIX® PR-BR

Base binder: acrylic copolymers;

Colour: a liquid with a blue or other colouration;

Mixing ratio: 5.5÷6.0 litres of water per 25 kg of mortar;

Usage: ready-to-use primer. For highly absorbent substrates, apply two coats - dilute the second coat with water in a 1:1 ratio;

Consumption: ca. 0.1 - 0.2 kg/m²;

Temperature of application (air and substrate): from +5°C to +25°C;

Packaging: Disposable paper bags containing 1, 5 and 20 kg of the product;

Storage: The product should be stored in its original sealed packaging in a dry frost-protected room. Note: The product must be kept out of the reach of children;

Shelf life: 12 months from the manufacture date specified on the packaging, provided that the storage requirements are observed. It is recommended to use the product within 6 months.

3.3.2 Brick slip adhesive/grout Terrix® AD-BR

Base binder: acrylic copolymers;

Colour: a liquid with a blue or other colouration;

Mixing ratio: 5.5÷6.0 litres of water per 25 kg of mortar;

Usage: ready-to-use primer. For highly absorbent substrates, apply two coats - dilute the second coat with water in a 1:1 ratio;

Consumption: ca. 0.1 - 0.2 kg/m²;

Temperature of application (air and substrate): from +5°C to +25°C;

Packaging: Disposable paper bags containing 1, 5 and 20 kg of the product;

Storage: The product should be stored in its original sealed packaging in a dry frost-protected room. Note: The product must be kept out of the reach of children;

Shelf life: 12 months from the manufacture date specified on the packaging, provided that the storage requirements are observed. It is recommended to use the product within 6 months.



3.3.3 Brick slip Terrix® BS-BR

Base binder: water-based polymer dispersion;

Pigments: inorganic iron oxide pigments resistant to UV radiation;

Density: ca. 1.3 g/cm³;

Content of solids: min. 44%;

Colour: standard colours and custom colours;

Usage: Varies depending on brick size. For standard-sized English bricks, the consumption rate is 66 brick slips/m².;

Temperature of application (air and substrate): from +5°C to +25°C;

Relative vapour diffusion resistance, Sd: ≤ 0.4m

Packaging: Packed in single-use cardboard boxes containing 1,4 or 5m²;

Storage: Store in a dry, weather-protected environment. Avoid storage at temperatures exceeding +30°C.

Shelf life: n/a.

4. System application

4.1 Substrate preparation

TERRIX® BSS-1 to be applied to a sound and clean substrate (without cracks and delaminations), degreased, even and dry, and biological or chemical efflorescence free). The substrate should be free of algae/fungi growth.

In case of microbial contamination, the substrate should be cleaned with a power washer. Subsequently a biocide solution for removing microbial contamination is to be applied as per the product manual. Any loose layers not bound to the substrate (such as loose render or flaked paint coats) should be removed. Wash and degrease old and/ or dirty substrate with water and a cleaning agent.

4.2 Priming

Preparation:

The product is ready to use, mix well before application. In the case of a two-coat application, mix the product for the second coat with water in a 2:1 ratio.

Application method:

Apply the primer using a brush or roller at ambient and substrate temperatures above +5°C. For highly absorbent or damaged substrates, it is recommended to use two coats of primer (the second coat is to be applied before the first coat is fully dry). For the second layer, mix the product with water at a ratio of 1 litre of primer to 0.5 litres of water.

After completion of work, tightly seal the container (the product remains suitable for further use).

Clean tools thoroughly with water after finishing work.

Drying:

The primer should dry for 24 hours before commencing the brick slip installation.

Note: Drying time may be longer in low temperatures and high relative humidity. To protect the top coat against inclement weather conditions, scaffolding should be covered with protective netting or tarpaulin.

Avoid applying in direct sunlight or during strong winds.

After completion of work, tightly seal the container (the product remains suitable for further use).

Clean tools thoroughly with water after finishing work.



4.3 Adhesive application

Preparation:

Terrix® AD-BR is ready to use. Thoroughly mix it with a mixing paddle before use.

Application method:

Apply the adhesive vertically onto the substrate using a 4x4 notched trowel, achieving a layer thickness of approximately 1.5 to 2.0 mm. Be mindful of the ambient conditions (temperature, relative humidity, etc.) and limit the application area to no more than 1 m² at a time in order to prevent surface skin from forming on the adhesive. Refrain from applying a larger quantity of adhesive than can be effectively processed within an estimated 10-minute timeframe.

After completion of work, tightly seal the container (the product remains suitable for further use).

Clean tools thoroughly with water after finishing work.

Drying:

Drying time depends on temperature and relative humidity (underneath the tile, it can take up to 5 days).

Always provide protection against atmospheric conditions for a minimum of 5 days for outdoor applications. During installation and drying, the temperature should not fall below +5°C.

Note: Drying time may be longer in low temperatures and high relative humidity. To protect the top coat against inclement weather conditions, scaffolding should be covered with protective netting or tarpaulin.

Avoid applying in direct sunlight or during strong winds.

After completion of work, tightly seal the container (the product remains suitable for further use).

Clean tools thoroughly with water after finishing work.

4.4 Brick slip application

4.4.1 Application Conditions

- temperature parameters: ensure that the ambient, substrate, and surface temperatures are within the range of +5 to +25°C. Deviations from the recommended temperature range may compromise the performance of the product;
- environmental protection: safeguard the applied cladding and adhesive from precipitation and excessive drying caused by strong winds or intense solar radiation;
- drying time: under optimal conditions, the adhesive's drying time varies from 2 hours (grout) to 48 hours (beneath cladding). Lower temperatures may extend the drying period for the adhesive underneath the brick slips to up to 5 days;
- substrate requirements: avoid applying cladding on damp, frost-affected substrates or surfaces with elevated temperatures or direct sunlight exposure;
- contamination management: in the event of adhesive-related contamination, promptly remove the adhesive before it solidifies.

4.4.2 Required tools

For the application process, the following tools are required:

- measuring tape;
- spirit level;
- mason's line/ chalk line or laser level;
- pencil;
- 4x4mm notched trowel;
- snap-off knife or scissors
- 10mm.

Thoroughly clean tools with water immediately upon completion of work. Eliminate bonded material solely through mechanical means.

4.4.3 Step 1

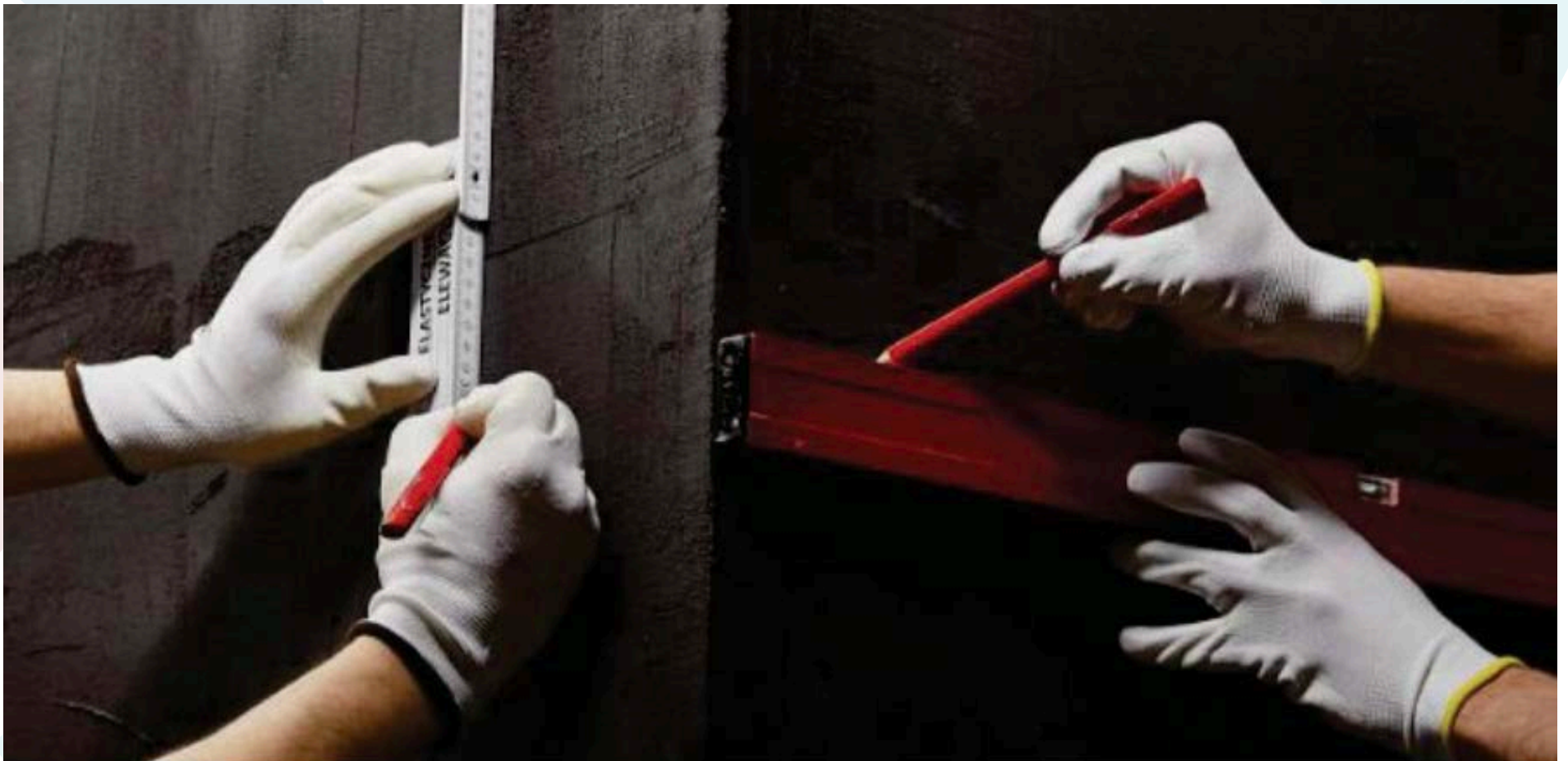
For easier application and control of the brick slip placement, including the thickness of grout joints and distribution, it is crucial to create a comprehensive layout plan of the substrate.

This plan will guide the precise positioning of brick slips and ensure the proper alignment of grout lines.

From the top of the substrate to be cladded, establish two horizontal reference lines at a calculated distance according to the following formulas:

1. For the first 4 rows: establish horizontal reference lines at a distance calculated as follows: 4 times the width of the brick slip used plus 3 times the chosen grout width (typically 10-12 mm).
2. For subsequent rows: establish horizontal reference lines at a distance calculated as follows: 4 times the width of the brick slip used, plus 4 times the chosen grout width (typically 10-12 mm).

In order to maintain the accurate positioning of brick slips and grout lines throughout the installation process, it is recommended to use a taut mason's line, a conventional spirit level, or a laser levelling device to delineate the specific adhesive levels. This will ensure a precise and professional finish, which is essential for the overall appearance and structural integrity of the cladding system.





4.4.4 Step 2

Terrix® AD-BR adhesive must be thoroughly mixed before use.

Terrix® AD-BR adhesive is a crucial component in the installation of brick slips and must be thoroughly mixed before use to ensure consistent performance and adherence. This adhesive is specifically designed for use with brick slips and provides a strong, durable bond when applied correctly.

To achieve the best results, apply the adhesive using a notched trowel with 4 x 4 mm teeth, preparing the substrate for four rows of brick slips simultaneously. The adhesive application should be carefully calculated and controlled to ensure optimal coverage and bonding of the brick slips to the substrate.

The size of the surface area covered with adhesive should be adjusted according to the ambient temperature to prevent premature drying. Maintaining a proper balance between adhesive coverage and working time is essential, ensuring that the adhesive remains fresh and moist throughout the application process. If the adhesive dries too quickly, a spray bottle can be used to dampen the adhesive surface, prolonging its workability.

In addition, to prevent the adhesive from drying prematurely in the container, periodically mist the adhesive's surface with a spray bottle, maintaining a moderate moisture level inside the bucket. This simple yet effective technique can extend the working time of the adhesive and promote a smoother, more efficient installation process.

Once the adhesive begins to dry, achieving a proper bond between the brick slips and the substrate becomes more challenging. The grout may not disperse effectively, potentially compromising the integrity of the brick slip system and leading to suboptimal sealing. To prevent this issue, monitor the drying process carefully and adjust the adhesive application and grouting techniques as needed, ensuring a durable, professional finish that will stand the test of time.



4.4.5 Step 3

Begin the adhesive process for wall cladding at the top of the wall, focusing on the corners first. Carefully trim the tiles to the desired size and arrange them in an edge-to-edge manner. To ensure a seamless appearance, fill any gaps that result from this alignment with a specialised compound designed for this purpose. Utilising this approach not only accelerates the installation process but also achieves a corner finish that closely resembles that of genuine brickwork.

Trimming the tiles is a more convenient option as opposed to bending them. This is because the tiles are primarily composed of natural materials, as opposed to rubber, which inherently has limited elasticity. The trimming technique allows for a more efficient workflow, enabling the completion of one wall surface before moving on to the next one.

In contrast, when bending the tiles, the adhesive must be applied to both surfaces simultaneously. This necessitates the removal of the adhesive from one surface before it dries, followed by a subsequent reapplication. This additional step can be quite time-consuming and labour-intensive.

After the adhesive has dried, it is essential to fill the gap created by the trimmed tile with a dedicated corner compound. This compound is made from the same material as the tile and is provided as part of the order. It ensures a cohesive and polished appearance for the final installation.

We recommend employing the bending technique for interior applications where attention to detail is of utmost importance and where a slower work pace can be accommodated. This approach may be particularly suitable for intricate designs or projects where a high level of craftsmanship is desired.



4.4.6 Step 4

Install the tiles following the predetermined brick bond pattern, ensuring the wet adhesive is applied consistently across the entire surface. While positioning the tiles, apply even pressure and maintain appropriate joint widths, typically between 10 and 12 millimetres, to guarantee a consistent and professional appearance.

To achieve optimal adhesion and prevent potential issues, paying close attention to the tile-to-wall contact during the installation process is crucial. Ensure that the entire surface of the tile adheres properly to the glue-covered wall by eliminating any voids or empty spaces beneath the tile. Inadequate adhesion can lead to issues such as tile detachment or water intrusion over time, ultimately compromising the integrity of the installation.

When applying the adhesive, it is recommended to use a notched trowel to achieve a uniform layer of adhesive on the wall surface. This tool allows for better control over the adhesive thickness, ensuring an even and consistent bond between the tile and the wall. It is also essential to select the appropriate adhesive type, taking into account factors such as the tile material, wall substrate, and environmental conditions.

Once the tiles are placed, it is necessary to periodically check the adhesion by removing a tile from the wall and inspecting the adhesive transfer. Ideally, the adhesive should cover 100% of the tile's back surface to guarantee a strong and enduring bond. If the adhesive coverage is insufficient, adjust the application technique accordingly, such as by increasing the adhesive layer thickness or modifying the trowel angle.

By carefully considering these aspects, you can achieve a high-quality, long-lasting, and aesthetically pleasing tile installation.



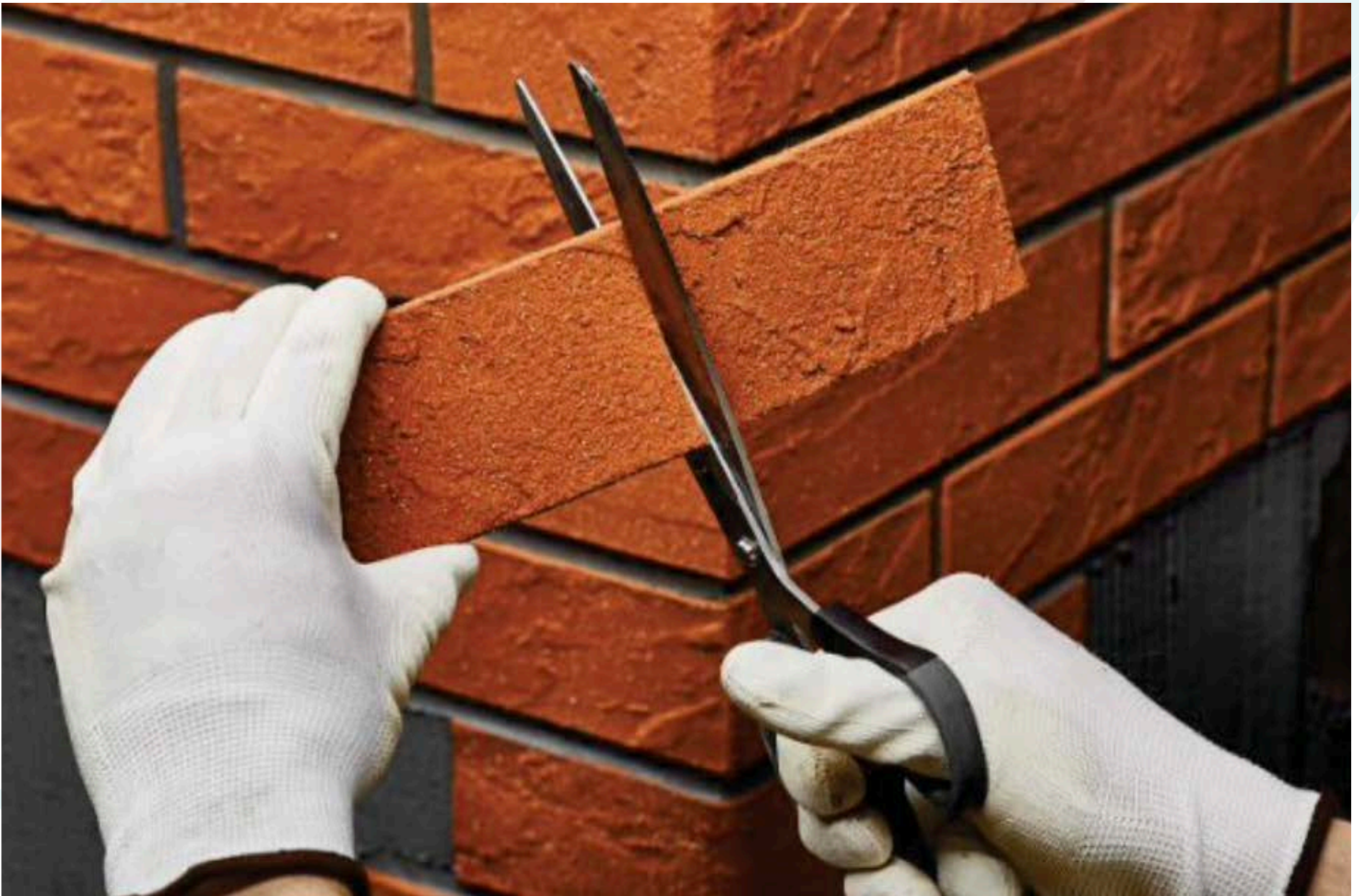
4.4.7 Step 5

Terrix® brick slips, a versatile and user-friendly cladding material, can be customised to fit specific dimensions and shapes required for a particular installation. To achieve precise cuts and measurements, you have a couple of options at your disposal.

Firstly, you can utilise a pair of heavy-duty scissors or tin snips, which are designed to handle the rigidity and thickness of such materials. This method allows for a relatively clean and straightforward cutting process, ensuring the brick slips fit seamlessly into the desired layout.

Alternatively, you can opt to use a sharp utility knife to score the brick slip from the bottom. When employing this technique, make sure to apply consistent pressure along the intended cut line to create a noticeable groove. Once the brick slip has been sufficiently scored, carefully snap the material along the scored line, resulting in a clean and accurate cut.

Both of these cutting methods cater to the unique composition and characteristics of Terrix® brick slips, ensuring that you can achieve a professional and precise installation. Selecting the appropriate cutting tool and technique based on your project's specific requirements will contribute to a seamless and high-quality finished product.



4.4.8 Step 6

Additional grouting for the tiles is unnecessary, as simply smoothing the adhesive within the joints using a **damp (but not wet) brush** is sufficient. It is essential to maintain a technical and methodical approach to achieve a professional finish when executing this technique.

First, ensure that the adhesive is evenly distributed within the joints. This can be achieved by applying consistent pressure while using the brush to smooth out the adhesive. Maintaining the right moisture level on the brush is crucial, as excessive water can negatively affect the adhesive's bonding properties.

Moreover, it is important to pay close attention to the edges of the tiles. The smoothed adhesive should form a tight seal around the tile edges, preventing any water infiltration. This watertight seal not only enhances the aesthetic appeal of the installation but also protects the tiles and substrate from potential water damage, which could lead to long-term issues such as mould, mildew, or structural deterioration.

To achieve the best results, it is recommended to use a brush with synthetic bristles, as they are less likely to retain water and provide a more controlled application. Additionally, make sure to clean the brush periodically during the smoothing process to remove any adhesive residue, ensuring that the brush remains effective and the adhesive application remains consistent.



4.4.9 Step 7

Upon drying the adhesive, any gaps that have formed at the corners must be filled with a specialised, dedicated compound specifically designed for this purpose. This compound comprises the same material as the brick slips, ensuring a seamless and cohesive finish.

To execute this procedure technically and meticulously, follow these steps:

1. Preparation: Before applying the dedicated compound, ensure that the surface is clean and free of dust or debris. This is crucial for achieving optimal adhesion between the compound and the tile edges.
2. Application: Utilise a suitable applicator, such as a small spatula or a specialised corner filler tool, to apply the compound to the corner gaps. This method allows for a more precise and controlled application compared to using a finger, ensuring an even distribution and professional appearance.
3. Curing: Allow the compound to dry according to the manufacturer's recommended time frame. The curing process is critical for the compound to achieve its full strength and bonding properties, ensuring a long-lasting and durable installation.
4. Final Inspection: Once the compound has fully cured, inspect the corner joints to ensure they are free of any imperfections, such as gaps or inconsistencies in the finish. If necessary, apply an additional compound to rectify any issues and repeat the curing process.

By following these technical guidelines, you can ensure that the corner gaps are filled effectively with the specialised compound, resulting in a cohesive and visually appealing finish that complements the overall tile installation.





4.5 Common mistakes while applying brick slips

Here are some common mistakes made while applying brick slips:

1. **Inadequate surface preparation:**

Failing to clean and prepare the surface properly can lead to poor adhesion, resulting in the brick slips coming loose over time.

2. **Insufficient adhesive coverage:**

Applying an uneven or inadequate amount of adhesive may cause brick slips to come loose or create an uneven surface.

3. **Poor alignment and spacing:**

Not maintaining consistent spacing and alignment between brick slips can result in an unprofessional finish and structural weaknesses. Using spacers can help maintain uniformity.

4. **Inadequate cutting:**

Cutting brick slips inaccurately can lead to gaps or misaligned bricks, affecting the overall appearance and integrity of the installation.

5. **Inadequate or improper expansion joints:**

Failing to provide sufficient expansion joints can cause the brick slips to crack or buckle due to temperature changes and building movement. Installing expansion joints at the recommended intervals and in the correct locations is crucial.

6. **Not following a pattern:**

Randomly installing brick slips without following a specific pattern can lead to an inconsistent appearance. Following a predetermined pattern or layout is important to achieve a visually appealing result.

7. **Improper sealing:**

Failing to seal the brick slips properly, especially in areas exposed to moisture, can lead to water damage, staining, and reduced installation longevity.

8. **Rushing the process:**

Applying brick slips is time-consuming and requires patience and attention to detail. Rushing through the installation can lead to mistakes and unsatisfactory results.

9. **Using a wet brush instead of a damp one:**

When grouting or cleaning excess adhesive from the brick slips during installation, using a wet brush can introduce too much water into the adhesive, potentially weakening the bond. Use a damp brush or sponge to clean the surfaces gently without compromising the adhesion.

10. **Insufficient pressure during installation:**

Not applying enough pressure when attaching the brick slips to the substrate can lead to weak adhesion and an increased risk of the slips coming loose over time. Ensure you apply firm, even pressure when installing each brick slip to ensure a strong bond with the adhesive.

11. **Using a notched trowel with improper notch size:**

The size of the notches on the trowel used to apply adhesive or mortar can significantly impact the bond between the brick slips and the substrate. Using a trowel with too small notches may not provide enough adhesive coverage, resulting in a weaker bond. Make sure to use a notched trowel with the recommended notch size for your brick slip installation to achieve optimal adhesion.

12. **Incomplete grouting in corner joints:**

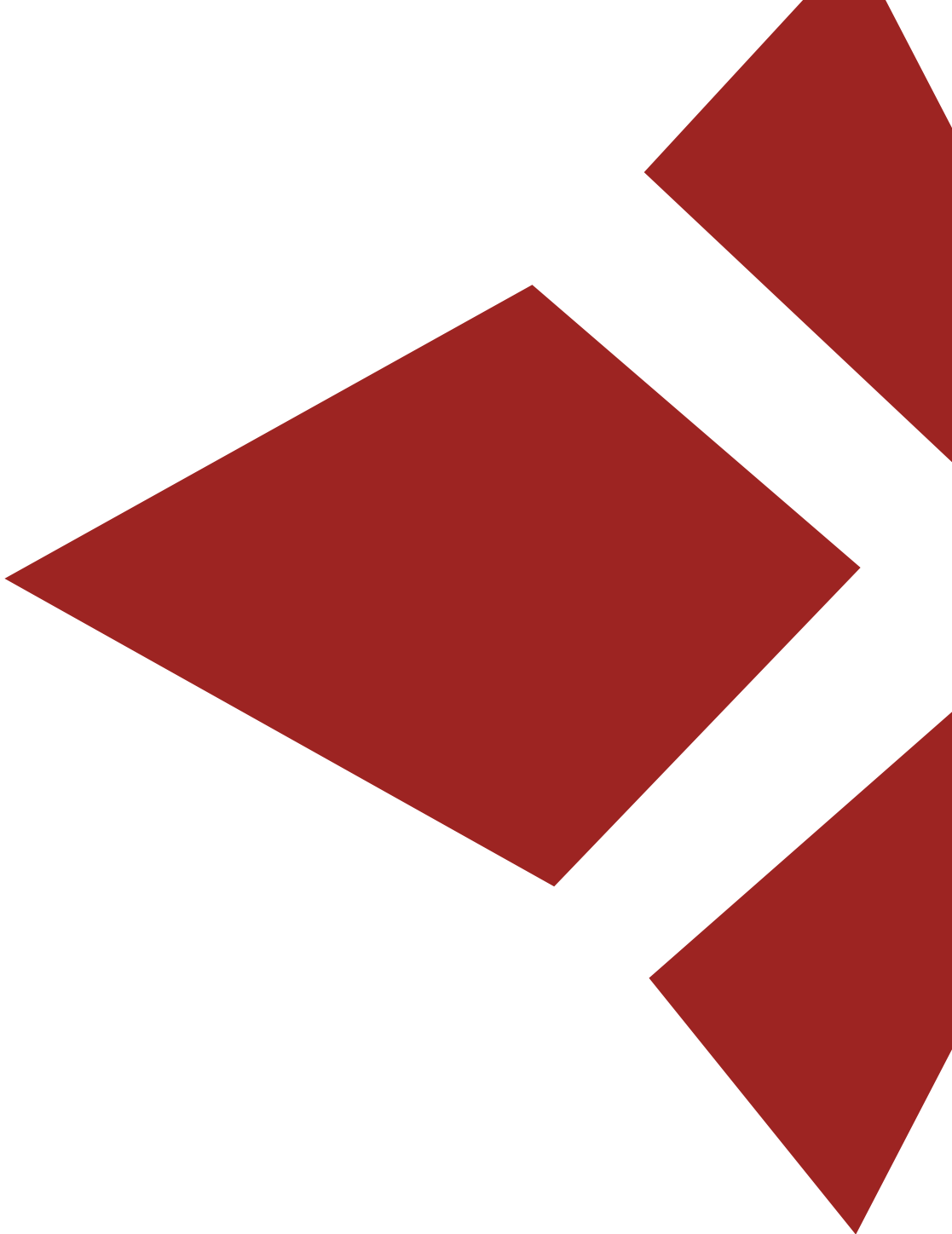
Neglecting to fill corners properly can lead to moisture infiltration and a less visually appealing finish. Filling all corner joints with a special corner filler is essential to maintain the installation's integrity and achieve a professional appearance. This filler is designed to match the colour of the brick slips, ensuring a seamless and cohesive look throughout the installation.

Being aware of these common mistakes and taking the necessary precautions can ensure a successful and long-lasting brick slip installation.

Should you encounter any inquiries or uncertainties, we kindly encourage you to contact our Technical Support Department, where our team of experts will be more than happy to provide professional guidance and assistance.

5. Correctly installed Terrix® Brick Slip System





PCC MORAVA - CHEM s.r.o.
Leoše Janáčka 798/20,
CZ-737 01 Český Těšín
Czech Republic

technical@terrix.co.uk
www.terrix.co.uk

Part of: **PCC SE**
Moerser Straße 149, 47198 Duisburg, Germany