

Processing Guidelines

# Mimmik Tile

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# 1. Introduction

This document provides general guidelines for the installation of Mimmik Tiles using polymer-modified thin-set mortar adhered systems for interior applications.

These guidelines are intended to assist qualified installers and should be used in conjunction with applicable industry standards, local building regulations, and manufacturer instructions for ancillary materials such as mortars, membranes, and sealants.

Alternative installation methods may be required depending on project conditions, substrate systems, or design requirements.

This guide does not supersede the professional judgment of contractors, consultants, or design professionals responsible for the installation.

It is recommended to order a minimum of 10% additional material to allow for cutting, waste, and installation losses.

## 2. Product Information

Mimmik™ Tiles are bioconcrete-based architectural tiles:

- manufactured by Biomason in Ikast, Denmark,
- using Zymecrete™ technology, a biologically formed binder produced without high-temperature kiln firing, with physical characteristics similar to natural limestone
- designed for architectural applications requiring durable, modular tiles with reduced embodied carbon.
- intended for interior installations unless otherwise specified or approved.

Because the material behaves similarly to natural stone, appropriate sealing and maintenance procedures should be followed to ensure long-term performance and appearance.

## 3. Design Considerations

Control joints and provisions for drainage, moisture management, and crack isolation must be incorporated into the design of the support and substrate systems prior to the installation of Mimmik Tiles.

Expansion joints should be provided in accordance with local building codes and recognized industry standards.

Failure to include proper movement joints may result in cracking, delamination, or other damage.

The manufacturer is not responsible for product damage resulting from improper installation methods or substrate preparation.

## 4. Suitable Support Systems

### Horizontal Installations

- Reinforced concrete slab
- Steel decking + concrete systems
- Other systems that provide rigidity to the structure

### Vertical Installations

- Wood stud framing
- Concrete
- Unit masonry (CMU or brick)

Structural support systems must be capable of supporting the dead load of the installation and meet local structural requirements.

## 5. Substrate Requirements

Suitable substrate preparations include:

- Clean and properly prepared concrete or masonry
- Fortified mortar beds
- Cementitious backer boards (interior installations)
- Waterproofing and uncoupling membrane systems
- Gypsum wallboard (dry interior areas only)

Waterproofing or uncoupling membranes must be installed according to the membrane manufacturer's instructions.

Substrates must be:

- structurally sound
- clean and free of contaminants
- dimensionally stable
- properly cured

Contaminants such as oil, curing compounds, sealers, dust, mortar residue, and soil must be removed prior to installation.

Dry or dusty concrete or masonry substrates should be lightly washed and allowed to dry before application of mortar or membranes.

Surface Flatness

Substrate surfaces must not exceed a deviation of:

- 6 mm over 3 meter.
- For larger tile formats, stricter flatness tolerances may be required.

## 6. Storage and Handling

Store tiles in a dry, protected environment until installation.

Maintain a minimum temperature of 4°C prior to, during, and for at least 48 hours after installation.

Tiles should be installed using material from multiple pallets simultaneously to distribute natural color and texture variations across the installation.

Claims regarding color or size variation will not be accepted after installation.

## 7. Health and Safety

Aggregates in Mimmik Tiles may contain crystalline silica.

Dust generated during cutting, drilling, or grinding may cause respiratory irritation, use of appropriate respiratory personal protective equipment is required.

When mechanically altering the product:

- Use wet cutting methods whenever possible
- Use proper dust extraction equipment
- Wear appropriate respiratory protection

Recommended respiratory protection includes:

- FFP2 mask (EN 149 European standard)
- Avoid prolonged or repeated inhalation of dust.

## 8. Tile Preparation

Before installation:

- Ensure tiles are free of dust and debris
- Lightly dampen tiles if rapid moisture absorption from the mortar is observed
- Do not allow standing water on the tile surface

If pre-sealing is required, the treatment must be applied to loose tiles before installation.

After pre-treatment, allow the tiles to dry for a minimum of 8 hours.

## 9. Cutting and Drilling

Cutting

- A wet saw equipped with a continuous-rim diamond blade is recommended for clean cuts.
- All cuts are recommended perpendicular to the base of the tile.
- Angle grinders or dry saws may also be used when fitted with suitable blades and dust extraction systems.

Drilling

- Use carbide or diamond-tipped drill bits designed for tile or stone.
- Wet drilling is recommended to minimize chipping and dust generation.
- For larger holes, use a progression in diameter of drill bits and a diamond hole saw designed for wet use.

### Important

Do not use a hammer drill directly on Mimmik Tiles. If drilling into the structural substrate is required, first drill a slightly larger pilot hole in the tile using the methods above.

# 10. Installation

## Mortar Selection

Use a high-quality polymer-modified thin-set mortar compatible with the substrate and environmental conditions.

Mortar selection should comply with applicable standards such as:

- EN 12004 – Class C2TE or higher (recommended for EU installations).

Prepare mortar according to the manufacturer's instructions.

Only mix quantities that can be applied within the product's working time.

## Mortar Application

- Apply mortar to the substrate using the flat side of the trowel to achieve full contact.
- Then comb the mortar using the notched side of the trowel, forming ridges in a single direction.
- Work in sections of approximately: 0.5 – 1 m<sup>2</sup>
- Mortar must not be allowed to skin before tiles are installed.
- If skinning occurs, remove the mortar and reapply.

## Tile Placement

- Tiles should be installed using a buttering-floating method, applying mortar to both the tile back and the substrate.
- Firmly press the tile into the mortar while sliding it perpendicular to the mortar ridges to collapse the ridges and achieve full coverage.
- 100% mortar coverage is required.
- Periodically remove a tile to verify proper mortar contact.
- Joint widths of minimum 5 mm are recommended.
- Use spacers to maintain consistent joint spacing.
- Remove excess mortar immediately before it hardens.

## Vertical Installations

Begin installation from the bottom using a temporary support ledge or mechanical support system.

After the mortar has cured, the support ledge may be removed and remaining tiles installed.

## Curing

Allow mortar to cure according to manufacturer recommendations before:

- grouting
- removing spacers
- permitting foot traffic

Typical curing time is 12–24 hours at 21°C.

### Pre-Grout Sealing (Optional but Recommended)

Prior to grouting, a penetrating stone sealer may be applied to the surface of the installed Mimmik Tiles to reduce the risk of grout staining. This step is particularly recommended when using contrasting grout colors or when tiles exhibit higher surface absorbency.

Apply the sealer according to the manufacturer's instructions and allow the recommended curing time before beginning the grouting process. Care should be taken to avoid excessive sealer accumulation in the joints.

## 11. Grouting

Ensure all joints and tile surfaces are free from excess mortar before grouting.

Grouting may be applied using standard floating techniques or a grout bag for larger joints.

Grout pigments with strong color contrast may stain the tile surface even when grout release agents are used.

For this reason, high-contrast grout colors are not recommended.

During grouting:

- work in small sections
- clean surfaces frequently
- change rinse water regularly

Allow grout residues to dry before brushing away remaining particles.

## 12. Cleaning Before Final Treatment

Before applying any protective treatment, ensure the installation is fully cured.

Tiles may be cleaned using lukewarm clean water or a pH-neutral stone cleaner.

For installation residues or light staining, use an acid-free stone cleaner according to the manufacturer's instructions.

After cleaning:

- rinse thoroughly with clean water
- remove remaining moisture using a wet vacuum or absorbent mop
- allow the surface to dry completely

## 13. Sealing and Surface Protection

Mimmik Tiles are not factory sealed.

It is recommended to apply a high-quality impregnating stone sealer to improve resistance to staining and discoloration.

Sealants should be:

- suitable for limestone or cementitious materials
- breathable
- compatible with interior architectural surfaces

Test the selected product on a sample tile prior to application.

Sealers may be applied:

- Pre-grouting (grout release) – to reduce grout staining during installation.
- Post-installation sealing – to provide long-term stain protection.

## 14. Maintenance

Routine maintenance will preserve the appearance and durability of Mimmik Tiles.

Recommended practices include:

- regular dusting or vacuuming
- damp mopping using pH-neutral cleaners
- periodic deep cleaning using stone-safe detergents

Avoid excessive water saturation during cleaning.

For stubborn stains, use a stone-safe poultice designed for the specific stain type.

## 15. Prohibited Cleaning Methods

Do not use:

- acidic cleaners (vinegar, citrus cleaners, muriatic acid)
- abrasive powders or scouring pads
- steel wool or wire brushes
- sharp metal tools
- high-pressure water jets

Pressure washers must not be used closer than 1 meter from the tile surface.

# 16. Recommended Installation Products (Examples)

The following products have been tested or validated for use with Mimmik Tiles. Equivalent products from other manufacturers with comparable specifications may also be suitable.

Installation Step	Product Type	Example Products	Purpose
Substrate preparation	Acid-free stone cleaner	HMK R155 Basic Cleaner	Removes dust, construction residue and light contamination before installation
Stain / wax removal (if needed)	Degreasing cleaner	HMK R152 Oil and Wax Remover	Removes oils, wax residues, or installation stains
Waterproofing layer (optional)	Waterproofing membrane	Sika waterproofing systems	Prevents moisture migration from substrate
Crack isolation / uncoupling	Uncoupling membrane	Sika or equivalent uncoupling membrane systems	Reduces stress transfer and cracking
Tile installation	Polymer-modified thinset mortar	Mortar compliant with <b>EN 12004 C2TE or higher</b>	Bonding of Mimmik Tiles to substrate
Tile pre-treatment	Protective pre-sealer	HMK P323 Wear-Resistant Satin Finish	Protects tile surface prior to grouting and installation
Grouting	Cementitious grout	Grout compliant with <b>EN 13888 CG2</b>	Joint filling between tiles
Post-install cleaning	Acid-free stone cleaner	HMK R155 Basic Cleaner	Removal of grout haze and installation residues
Primary impregnation	Stone impregnator	HMK S232 Stain Stop	Reduces absorption and protects against staining

Final surface protection	Stone protection impregnator	HMK S234 Stain Stop	Long-term stain protection
Routine maintenance	pH-neutral stone cleaner	Faber or HMK maintenance cleaners	Regular cleaning of installed surfaces

The products listed above are examples of compatible materials that have been successfully used with Mimmik Tiles. Equivalent products from other manufacturers meeting the same performance specifications may also be used. Always follow the manufacturer's instructions for installation and curing.

#### Required Product Specifications

Product	Required Standard
Thinset mortar	EN 12004 C2TE
Grout	EN 13888 CG2
Respirator mask	EN 149 FFP2
Waterproofing membrane	EN 14891

## 17. Contact Information

For technical assistance or product inquiries, contact our distribution partner:

FRONT® Materials [sales@front-materials.com](mailto:sales@front-materials.com)

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