

BUMA-TA®

BUMAECO

Standard cementitious tile/ stone adhesive

In compliance with European standard

EN 12004:2017

C1T

bumatech

Cementitious adhesive for ceramic tiles

Economical

Dual purposes, for wall and floor

High tensile strength

Suitable for porcelain tiles



SINGAPORE
GREEN
BUILDING
PRODUCT

SGBC



VERY GOOD



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PRODUCT DESCRIPTION

BuMaEco is a bagged cementitious powder. It mix with water to make adhesive for installation ceramic tile, porcelain tile and stone. Use in interior residential: living, dining room, store, utility room, bathroom, kitchen or light commercial floor. Classified C1T in compliance with TCVN 7899-1:2008; EN12004-1:2017; meet and exceed requirement of ANSI 118.4 and zero VOC certification

USES

- Used for interior tile with dimension up to: 1000x1000, 600x1200, 750x1500
- Can be used for wet area, bathroom, balcony
- Use for water tank with absorption of tile $\geq 3\%$

SUITABLE SUBSTRATES

- Cement mortar beds
- Cement plaster
- Precast concrete panel*
- Cement board, gypsum board*
- Concrete*
- Cementitious waterproofing product*

* Consult Technical Services for more information

PACKAGING

25 kg/bag

COLOUR

Grey or white

COVERAGE: 1.5 kg/m² for 1mm thickness

SHELF LIFE

Factory sealed containers of this product are guaranteed to be of first quality for one (1) year* if stored off the ground in a dry area

* High humidity will reduce the shelf life of bagged product

LIMITATIONS

- Install only at temperatures between 4°C and 35°C
- DO NOT use for moisture-sensitive stone (marble, some limestone and granite), resin-backed tiles. Instead, use suitable epoxy adhesives **Cerapoxy** or fast-setting cementitious tile adhesive **PorceRapid** in white color
- Contains Portland cement and silica sand. May irritate skin in case of prolonged contact with skin
- DO NOT take internally. Avoid breathing dust. Wear a respirator in dusty areas
- Use a white mortar when installing light-colored stones and translucent marble
- DO NOT use **BuMaEco** for big water tank and big swimming pool (Olympic size).. Instead, use premium adhesive **BuMaBond** or **BuMaFlex**
- Keep out of reach of children

INSTALLATION**Surface preparation**

- All surfaces should be between 4°C and 35°C
- Surfaces must be structurally sound, clean and free of all dirt, oil, grease, paint, concrete sealers or curing compounds
- Rough or uneven concrete surfaces should be made smooth with cementitious mortar
- All slabs must be plumb and true to within 2mm in 2m.
- Dry, dusty concrete slabs or masonry should be dampened and excess water swept off
- Concrete slabs should be damp cured and 28 days old before application. For installation on new concrete slabs after 1 day cured (Green Concrete), using **BuMaFlex** or mix **BuMaEco** with tile adhesive additive **Ceralastic**
- Concrete surfaces must be mechanically roughened prior to application to provide mechanical bond. All substrates must have minimum ICRI CSP 2 to 3
- Substrate deflection under all live, dead and impact loads, including concentrated loads, must not exceed limitations.
- Tensile adhesive of applied surface must be at least 1.5MPa

Movement Joint – TCNA detail EJ171

Perimeter and field movement joints within a tile installation are essential and required. Please follow recommendations and guidelines as below:

- Interior: maximum of 7.6m in each direction
- Exterior: 2.4 – 3.7m in each direction
- Interior tilework exposed to direct sunlight (heat) or moisture: maximum of 3.7m in each direction
- Above-ground concrete slab structure: maximum of 3.7m each direction

All expansion, control, construction, cold, saw-cut, isolation, contraction, and seismic joints in the structure should continue through tilework, including such joints at vertical surfaces.

- Refer pictures at the end of TDS for detail

Mortar coverage

- Mortar coverage must be sufficient to prevent cracks resulting from voids in the setting bed
- Mortar coverage is to be evenly distributed to support edges and corners
- Choose a typical notched trowel to achieve 100% mortar contact to both the tile and substrate.
- It may be necessary to back-butter tiles in order to reach requirement

Mixing

- Pour 6.0 – 6.5L of potable water into a clean pail
- Gradually add 25kgs of powder while slowly mixing
- Use a low-speed mixing drill (about 300-600 rpm). Mix thoroughly until mixture becomes a smooth, homogenous. Avoid prolonged mixing

- Let mixture stand (“slake”) for 3 - 5 minutes, remix
- During application time, if mixture becomes heavy or stiff, remix without adding more water

Application

- Use flat side of the trowel, pressing firmly to work into surface
- Apply additional mortar, combing it in a single direction with the trowel’s notched side
- Spread mortar only in small area (1 - 2m²) adequately to install tiles before it skins over, cause of debonding problem
- Place the tiles firmly into the wet mortar. Push the tiles back and forth in a direction perpendicular to trowel lines, to collapse the mortar ridges and to help achieve maximum coverage. Ensure proper contact between mortar, tile and substrate by periodically lifting a few tiles to check for acceptable coverage
- Remove excess mortar from the joint areas so that at least 2/3 of the tile depth is available for grouting

Grouting

- Grout installation after a minimum of 24 hours curing time. Grout with UnSanded Grout **Ceracolor** (mix with water or **Ceracolor Admix**), **Ceracolor USG**, **Ceracolor USG EXTRA**, Sanded Grout **Ceracolor SG** or epoxy grout **Cerapoxy**.
- Refer tile grout technical datasheet for more information and guide

Protecting new tilework

- To avoid damage to finished tilework, schedule floor installation to begin only after all structure work, building enclosure, and overhead finishing work, such as ceilings, painting, mechanical work, are completed
- Keep all traffic off finished tile floors until they have fully cured. Builder shall provide up to ¾” thick plywood or OSB protection over non-staining Kraft paper to protect floors after installation materials have cured.
- Covering the floor with polyethylene or plywood in direct contact with the floor may adversely affect the curing process of grout and

Cleaning

- Due to high adhesion strength of this product (even on metals), tools should be washed before mixture becomes harden
- Once mixture setting, cleaning can only be carried out by mechanical method

SAFETY PRECAUTIONS

- In case of contact with the eyes, rinse with running water (10-15min)
- Wear protective gloves, clothing and eyes and face protection.

DISCLAIMER

- Technical details and reccomendations contained in this product datasheet correspond to the best of our knowledge and experiences at the time of printing
- These detail offered for user’s consideration and evaluation. It is the responsibility of the user to conduct their own tests to validate the suitability of the products for their requests
- Technical details and reccomendations can be changed by site condition and workmanship of applicators.
- As we have no control over site conditions and the execution of the work, we accept no liability for any loss or damage which may rise as a result thereof. We also reserve the right to update the information at any time without prior notice to you to reflect our ongoing research and development program
- The newest technical date sheet will be supplied upon user request

TECHNICAL SERVICES/ AVAILABILITY

Information is available by calling

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PRODUCT PERFORMANCE PROPERTIES

Test	Test Method	Specification	Result
Tensile adhesion strength	TCVN 7899/ EN 1348	$\geq 0.5 \text{ N/mm}^2$	$\geq 1.4 \text{ N/mm}^2$
Tensile adhesion after water immersion	TCVN 7899/ EN 1348	$\geq 0.5 \text{ N/mm}^2$	$\geq 1.2 \text{ N/mm}^2$
Tensile adhesion after heating ageing	TCVN 7899/ EN 1348	$\geq 0.5 \text{ N/mm}^2$	$\geq 0.5 \text{ N/mm}^2$
Open time (20 mins)	TCVN 7899/ EN 1346	$\geq 0.5 \text{ N/mm}^2$	$\geq 0.5 \text{ N/mm}^2$
Slip	TCVN 7899/ EN 1346	$\leq 0.5 \text{ mm}$	$\leq 0.5 \text{ mm}$
Porcelain tile shear strength	ANSI A118.4	$\geq 1.38 \text{ N/mm}^2$	$\geq 1.38 \text{ N/mm}^2$
VOC content	USEPA Method 24	$\leq 65 \text{ g/l}$	0 g/l
Pot life (29°C)	n/a	n/a	2.0 hours
Adjusting time	n/a	n/a	10 minutes
Time before grouting	n/a	n/a	24 hours

Specifications subject to change without notification. Results shown are typical but reflect test procedures used. Actual field performance will depend on installation methods and site conditions

INSTALLATION GUIDE



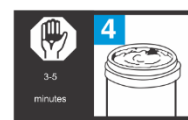
Prepare and check substrate



Pour clean water into mixing pail



Slowly pour tile adhesive and mix



Wait for all chemicals react



Apply adhesive to substrate



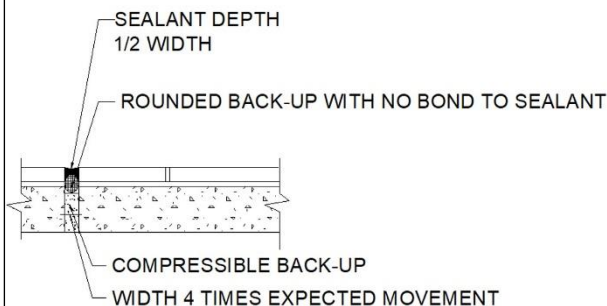
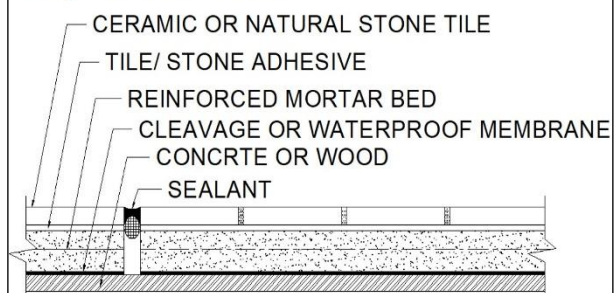
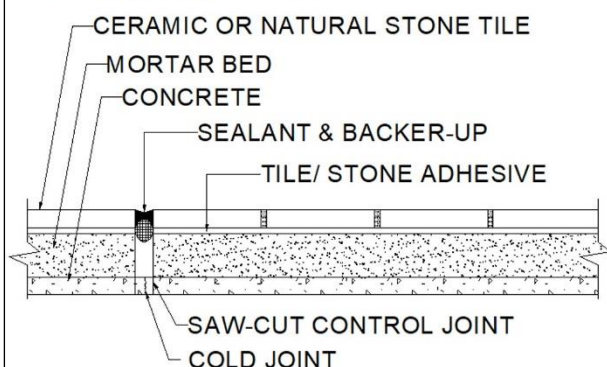
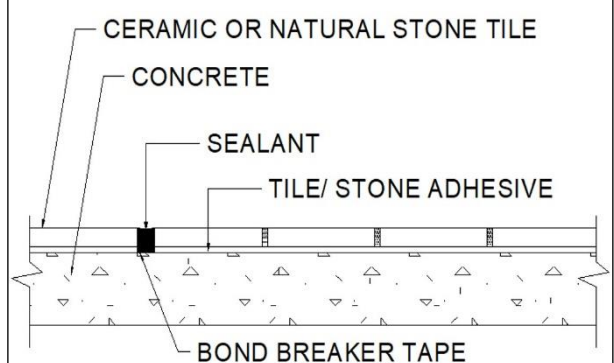
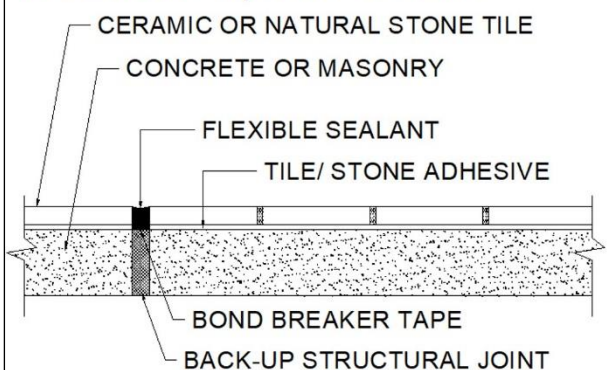
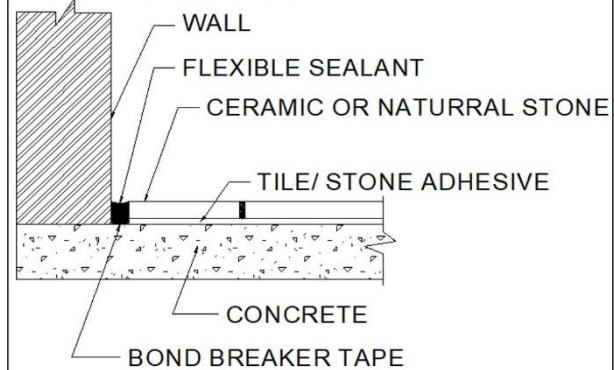
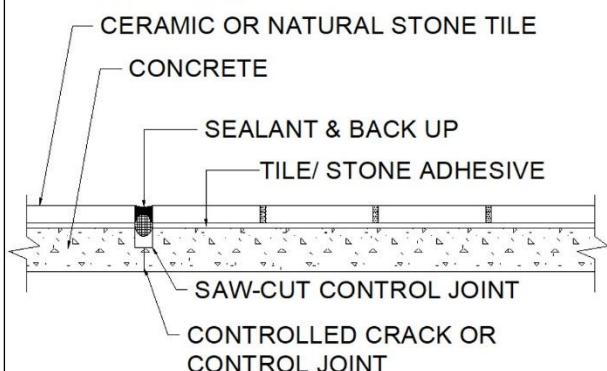
Combing adhesive in a single direction



Back- buttler tiles with adhesive



Place tile firmly into wet adhesive

EJ171-17**Expansion Joint****EJ171C-17****Expansion Joint****EJ171A-17****Construction Joint****EJ171F-17****Generated Movement Joint****EJ171D-17****Isolation/ Expansion Joint****EJ171G-17****Perimeter Joint****EJ171B-17****Construction Joint****EJ171I-17****Perimeter Joint**