

BUMA-TA®

# BUMAFLEX

Premium flexible cementitious tile/ stone adhesive



High polymer content

Super high adhesion strength

Flexibility

Multi-applications



BUMATECH CO., LTD

Factory: 820 Chanh Hamlet, Duc Lap Ha, Duc Hoa, Long An Province

Telephone: 028.3868 3803

Email: [info@bumatech.com.vn](mailto:info@bumatech.com.vn)

Website: [www.bumatech.com.vn](http://www.bumatech.com.vn)

## PRODUCT DESCRIPTION

**BuMaFlex** is a high performance bagged cementitious powder with higher polymer content. It has high deformable characteristic and extended open time. It is suitable for installation of large size tile and exterior application. This product meets & exceeds requirement for C2TES1 according to TCVN 7899 – 1:2008, EN 12004 – 1:2017; meet and exceed requirement of ANSI 118.15 and zero VOC certification.

## USES

- Used for interior tile, stone with dimension up to: 1000x3000
- Used for exterior tile with dimension up to: 600x1200, maximum height is 10m.
- Used for pool, water tank
- New tile on existing tile

## SUITABLE SUBSTRATES

- Cement mortar beds
- Cement plaster
- Cementitious waterproofing and dispersion waterproofing product\*
- Concrete\*
- Cement backer board, gypsum board with paper, moisture resistant gypsum board (Sheetrock...)\*
- Existing tile substrate\*

\* Consult Technical Services for more information.

**PACKAGING:** 25 kg/bag

**COLOUR:** Grey or white

**COVERAGE:** 1.5 kg/m<sup>2</sup> 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
- 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 6.5 – 7.0L 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 - 2m<sup>2</sup>) adequately to install tiles before it skins over, cause of de-bonding 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

#### **BUMATECH CO., LTD**

**Office:** 154/1/5 Cong Lo, Ward 15, Tan Binh District, Ho Chi Minh City

**Factory:** 820 Chanh Hamlet, Duc Lap Ha Ward, Duc Hoa District, Long An Province

Technical : 028. 3910 0814

Sale : 028. 3868 3803

Email : [info@bumatech.com.vn](mailto:info@bumatech.com.vn)

Website : [www.bumatech.com.vn](http://www.bumatech.com.vn)

## PRODUCT PERFORMANCE PROPERTIES

Test	Test Method	Specification	Result
Tensile adhesion strength	TCVN 7899/ EN 1348	≥ 1.0 N/mm <sup>2</sup>	≥ 2.0 N/mm <sup>2</sup>
Tensile adhesion after water immersion	TCVN 7899/ EN 1348	≥ 1.0 N/mm <sup>2</sup>	≥ 2.0 N/mm <sup>2</sup>
Tensile adhesion after heating ageing	TCVN 7899/ EN 1348	≥ 1.0 N/mm <sup>2</sup>	≥ 1.5 N/mm <sup>2</sup>
Open time (30 mins)	TCVN 7899/ EN 1346	≥ 0.5 N/mm <sup>2</sup>	≥ 0.8 N/mm <sup>2</sup>
Slip	TCVN 7899/ EN 1346	≤ 0.5 mm	≤ 0.5 mm
Transverse deformation	TCVN 7899/ EN 1348	≥ 2.5mm	≥ 2.5mm
Porcelain tile shear strength	ANSI A118.4	≥ 2.40 N/mm <sup>2</sup>	≥ 3.00 N/mm <sup>2</sup>
VOC content	USEPA Method 24	≤ 65 g/l	0 g/l
Pot life (29°C)	n/a	n/a	4.0 hours
Adjusting time	n/a	n/a	20 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



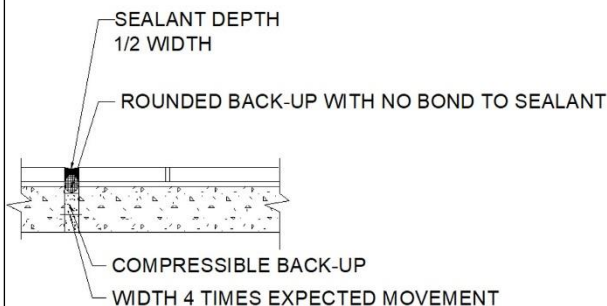
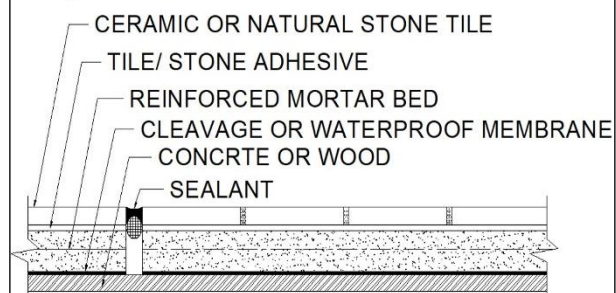
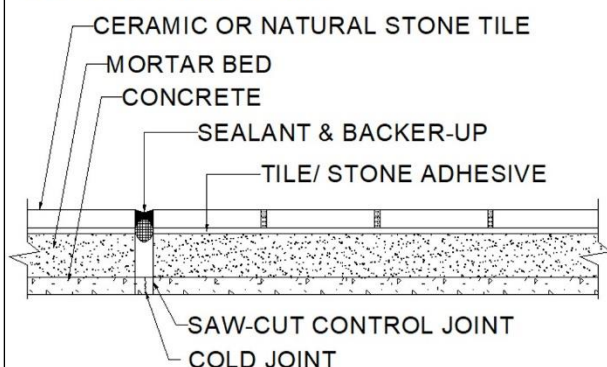
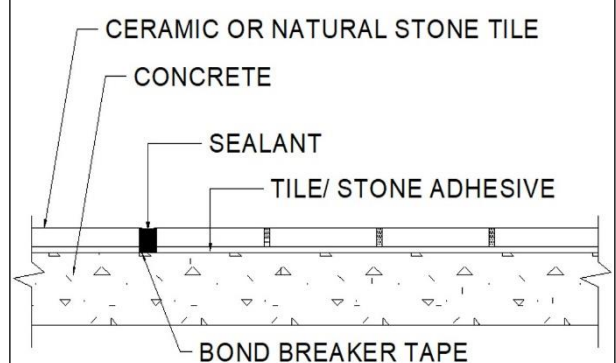
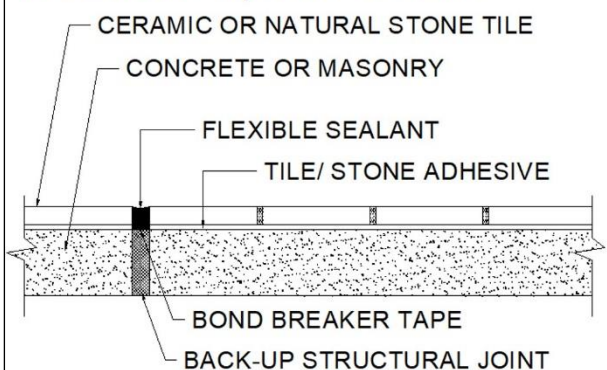
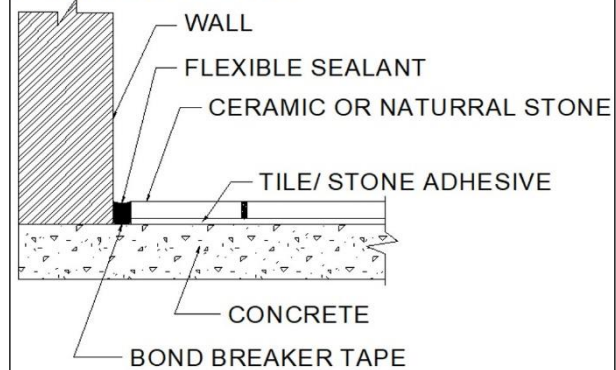
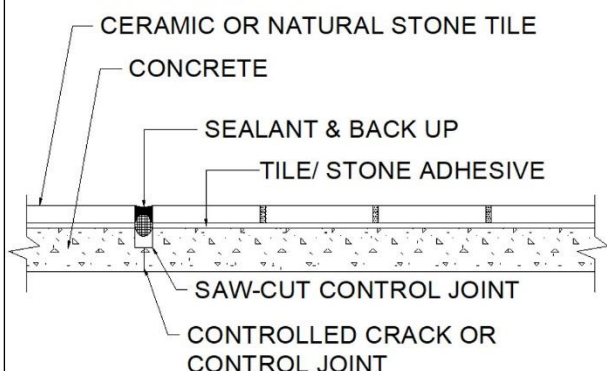
Combing adhesive in a single direction



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**