BUMATECH

Tile Adhesive • Waterproofing • Dry Mix • Construction Chemicals

PRODUCT LINE CATALOGUE · 2027



5.MOTA PRODUCT LINE

CONSTRUCTION MORTAR

25 factory-packaged cement-based products for

Masonry · Render · Screed · Finishing · Floor hardening · Concrete repair · Grouting · Joints

11 Re · Sc grades from 7.5 to 60.0MPa and 14 speciality products — data to TDS v2026.10.

- Re 75 · Re 100
- Sc 100 to Sc 600 · 9 grades
- IWR
- WTP MOTA
- AAC-J
- Skim 2in1 IN
- Skim 2in1 EX
- TopHARD
- PATCH 20
- PATCH 40
- PATCH 60
- FLEX JC 2K
- BuMaFILL 30
- BuMaFILL 50
- BuMaFILL 70
- BuMaFILL 90

SINGAPORE GREEN BUILDING COUNCIL MEMBER

VGBC STANDARD MEMBER

BROCHURE CONSTRUCTION MORTAR

COMPANY PROFILE BUMATECH

ZALO OA

CONTENTS

Cover — 5.MOTA Construction mortar line
25 products · 6 families · QR codes — 1

Contents and quick selection chart
4 steps to the right mortar · 3 key figures of the line — 2

6 product families
Role of each family · Test standards by family — 3

Re and Sc grades
11 grades · Common data · QR codes to the TDS — 4

Comparison of 14 speciality products
Strength · Bond · Mixing water · Coverage · Thickness — 5

Speciality masonry, render and wall finishing
IWR · **WTP MOTA** · **AAC-J** · **Skim 2in1 IN** · **Skim 2in1 EX** — 6

Floor hardening, repair and joints
TopHARD · **PATCH 20** · **PATCH 40** · **PATCH 60** · **FLEX JC 2K** — 7

Non-shrink grouts
BuMaFILL 30 · **BuMaFILL 50** · **BuMaFILL 70** · **BuMaFILL 90** · Strength development — 8

Selection by application
Applications per the TDS · Quick coverage for take-off — 9

Application procedures for 6 groups
Substrate · Mixing · Application · Curing per the TDS — 10

2 specific procedures and safety
TopHARD · **FLEX JC 2K** · Application limits · Safety — 11

System solutions and contact
Companion lines · List of 25 products · 3 addresses — 12

25 PRODUCTS IN THE 5.MOTA LINE

RE · SC MASONRY, RENDER, SCREED
- Re 75 · Re 100
- Sc 100 · Sc 150 · Sc 200 · Sc 250
- Sc 300 · Sc 350 · Sc 400
- Sc 500 · Sc 600

SPECIALITY MASONRY AND RENDER
- IWR
- WTP MOTA
- AAC-J

SURFACE FINISHING
- Skim 2in1 IN
- Skim 2in1 EX
- TopHARD

CONCRETE REPAIR
- PATCH 20
- PATCH 40
- PATCH 60

JOINT TREATMENT
- FLEX JC 2K

NON-SHRINK GROUTS
- BuMaFILL 30
- BuMaFILL 50
- BuMaFILL 70
- BuMaFILL 90

CHOOSE THE RIGHT MORTAR IN FOUR STEPS

Identify the job, the substrate, the design strength and the exposure — then choose the product.

01
What job
Masonry, render, screed, wall finishing, floor hardening, repair, grouting or joints — see the application table on page 9.

02
Substrate
Fired clay brick, pressed block, concrete, AAC or precast panels — each TDS states the suitable substrates and when a bonding coat is needed.

03
Design strength
Choose the grade by design strength. This document does not assign grades to applications and does not replace the design specification.

04
Exposure
Skim 2in1 IN for interior work, **Skim 2in1 EX** for exterior; walls exposed to wind-driven rain and water-immersed elements use **WTP MOTA**.

25
PRODUCTS IN THE LINE
25 products in 6 families: 11 Re · Sc grades for masonry, render and screed, and 14 speciality products for masonry and render, finishing, repair, joints and grouting.

90.0MPa
HIGHEST COMPRESSIVE STRENGTH
The highest-grade non-shrink grout reaches ≥ 90.0MPa after 28 days to TCVN 9204:2012 · ASTM C349-24.

11
RE · SC GRADES
One type of mortar, 28-day compressive strength from 7.5MPa to 60.0MPa — the 9 Sc grades also serve as floor screed.

All data in this document are taken from the issued **Technical Data Sheet (TDS) version 2026.10** of each product. Scan the QR code on each product card and on page 4 to open the latest TDS. Where this document and the TDS differ, **the TDS prevails**.

ONE LINE, SIX FAMILIES BY JOB

Masonry and render, finishing, repair, joints, non-shrink grouting — one family for each job on site, all cement-based and factory-mixed.



*Laying a floor screed with ready-mixed dry mortar **Sc 100***

Re · Sc masonry, render, screed

11 GRADES

The same Portland cement, selected aggregates and synthetic polymer additives — differing only in 28-day compressive strength, from **Re 75** ≥ 7.5MPa to **Sc 600** ≥ 60.0MPa. The 9 Sc grades also serve as floor screed.



*Applying **IWR** water-resistant render to an external wall*

Speciality masonry and render

3 TYPES

IWR for waterproof, moisture-resistant masonry and render; **WTP MOTA** rendered straight onto brick, render and waterproofing in one; **AAC-J** for laying AAC blocks and panels with joints of 2 - 5mm.



*Applying **Skim 2in1 EX** to the concrete wall of a high-rise building*

Surface finishing

3 TYPES

Skim 2in1 IN indoors, **Skim 2in1 EX** outdoors — 5mm per layer, in place of the traditional skim coat. **TopHARD** is broadcast dry onto fresh concrete to harden the floor surface.



*Patching honeycombing and surface defects with **PATCH 20***

Concrete repair

3 TYPES

PATCH 20 patches non-structural defects; **PATCH 40** repairs structures damaged by reinforcement corrosion; **PATCH 60** is for heavily loaded structures, abrasion and aggressive environments.



*Applying **FLEX JC 2K** and bedding glass-fibre mesh into a panel joint*

Joint treatment

1 TYPE

Pre-packaged powder and liquid components, high adhesion and flexibility — joints of precast wall panels, cement board, plasterboard, and cracks. Not for movement joints.



*Pouring **BuMaFILL 30** into the formwork of a small equipment base*

Non-shrink grouts

4 TYPES

One-component, non-shrink, self-levelling — grouting machine bases, anchor bolts, gaps. Four grades of 28-day compressive strength 30.0 · 50.0 · 70.0 · 90.0MPa.

CLASSIFICATION AND TEST STANDARDS BY FAMILY

Re · Sc

Classified to TCVN 4314:2022 (6 grades) · Tested to TCVN 3121-3:2022 · TCVN 3121-11:2022 · TCVN 3121-17:2022

Speciality masonry and render

IWR: ASTM C1714/C1714M-26 · C270-26 Type S · C1384-23 Type WR · **WTP MOTA**: EN 998-1:2016 · OC · CS IV · W2 · **AAC-J**: TCVN 9028:2011

Surface finishing

Skim 2in1 IN, **Skim 2in1 EX**: TCVN 7239:2014 · **TopHARD**: TCVN 3121-11:2022

Concrete repair

ASTM C349-24 · ASTM C348-21 · ASTM D7234-21

Joint treatment

ASTM D4541-22 · BS EN 14891:2017 · ASTM D412-16(2021) · ISO 868:2003

Non-shrink grouts

TCVN 9204:2012 · ASTM C1437-20 · ASTM C349-24 · ASTM C940-22 · ASTM C403/C403M-23

Standards are taken from the “Standard” column of the Technical data table and from the Classification cell of each TDS. Tender documents specify by standard — check the year of issue printed on the TDS.

11 GRADES — ONE MORTAR, DIFFERENT STRENGTHS

The 11 grades share the same composition and the same Uses section in the TDS; they differ in 28-day compressive strength, mixing water, the liquid gauged in place of water and the mesh reinforcement threshold. Choose the grade by design strength.

Grade	Compressive 28 days, MPa	Water per 25kg bag, L	Water per 50kg bag, L	In place of water	Mesh where thicker than	Uses per the TDS
Re 75	**≥ 7.5**	3.50 - 3.75	7.00 - 7.50	**BuMaLATEX**	3cm	Masonry · Render · Repair
Re 100	**≥ 10.0**	3.50 - 3.75	7.00 - 7.50	**BuMaLATEX**	3cm	Masonry · Render · Repair
Sc 100	**≥ 10.0**	3.25 - 3.50	6.50 - 7.00	**BuMaLATEX**	3cm	Masonry · Render · Repair · Screed
Sc 150	**≥ 15.0**	3.00 - 3.25	6.00 - 6.50	**BuMaLATEX**	3cm	Masonry · Render · Repair · Screed
Sc 200	**≥ 20.0**	3.00 - 3.25	6.00 - 6.50	**BuMaLATEX**	3cm	Masonry · Render · Repair · Screed
Sc 250	**≥ 25.0**	3.00 - 3.25	6.00 - 6.50	**BuMaLATEX**	3cm	Masonry · Render · Repair · Screed
Sc 300	**≥ 30.0**	3.00 - 3.25	6.00 - 6.50	**BuMaLATEX**	3cm	Masonry · Render · Repair · Screed
Sc 350	**≥ 35.0**	3.00 - 3.25	6.00 - 6.50	**BuMaLATEX**	3cm	Masonry · Render · Repair · Screed
Sc 400	**≥ 40.0**	3.00 - 3.25	6.00 - 6.50	**BuMaLATEX / LATEX SP**	2cm	Masonry · Render · Repair · Screed
Sc 500	**≥ 50.0**	3.13 - 3.38	6.25 - 6.75	**BuMaLATEX / LATEX SP**	2cm	Masonry · Render · Repair · Heavy-duty screed
Sc 600	**≥ 60.0**	3.25 - 3.50	6.50 - 7.00	**BuMaLATEX / LATEX SP**	2cm	Masonry · Render · Repair · Heavy-duty screed

Flowability tested to TCVN 3121-3:2022 · Compressive strength to TCVN 3121-11:2022 · Chloride ion to TCVN 3121-17:2022 — common to all 11 grades.

Classified to TCVN 4314:2022: 6 grades **Re 75** · **Re 100** · **Sc 100** · **Sc 150** · **Sc 200** · **Sc 300**.



Ready-mixed dry mortar bag common to the 11 grades · 25kg/bag · 50kg/bag

COMMON DATA

Packaging	25kg/bag · 50kg/bag
Colour	Grey
Coverage	One 25kg bag yields 12.5 - 13.0 litres of mortar
Flowability	175 - 205mm
Drying per 10mm layer	02 - 03 hours
Curing	Mist-cure for at least 7 days
Chloride ion content	< 0.1%
Shelf life	06 months (unopened bag)
Storage	Cool, dry, well-ventilated place

SCAN FOR THE TDS OF EACH GRADE

RE 75 — Re 75
RE 100 — Re 100
SC 100 — Sc 100
SC 150 — Sc 150
SC 200 — Sc 200
SC 250 — Sc 250
SC 300 — Sc 300
SC 350 — Sc 350
SC 400 — Sc 400
SC 500 — Sc 500
SC 600 — Sc 600

Do not add cement or sand to the product. The mortar is factory-batched — adding other materials alters the mix design and voids the declared performance figures. Reinforce between layers with steel mesh or **BuMaMESH 70** / **BuMaMESH 150** where the mortar layer exceeds the threshold in the sixth column.

14 SPECIALITY PRODUCTS — QUICK COMPARISON

Product	Compressive 28 days, MPa	Bond MPa	Mixing water	Coverage	Thickness, dimensions	Shelf life
IWR Masonry, render	**≥ 10.0**	≥ 0.5	3.38 - 3.63 L per 25kg bag	~0.7m²/bag at 20mm thickness	–	06 months
WTP MOTA Masonry, render	**≥ 15.0** CS IV	≥ 0.5 Brick	3.75 - 4.00 L per 25kg bag	~2.0kg/m² per 1mm	12mm/layer · Max 48mm	06 months
AAC-J Masonry, render	**≥ 10.0**	≥ 0.4 · ≥ 0.8 AAC blocks · Concrete	5.75 - 6.25 L per 25kg bag	At 2mm: 13.5m² · 3mm: 9.0m² · 4mm: 6.7m² per bag 600 × 200 × 100mm block	Joint thickness 2 - 5mm	06 months
Skim 2in1 IN Finishing	**≥ 10.0**	≥ 0.8	5.75 - 6.00 L per 25kg bag	~1.5kg/m² per 1mm thickness	5mm per layer · Max 10mm (2 layers)	06 months
Skim 2in1 EX Finishing	**≥ 10.0**	≥ 1.2	5.75 - 6.00 L per 25kg bag	~1.5kg/m² per 1mm thickness	5mm per layer · Max 10mm (2 layers)	06 months
TopHARD Finishing	**≥ 60.0**	–	– Dry shake	3 - 5kg/m² (grey) · 5 - 7kg/m² (other colours) Normal areas	Joint bays maximum 25m²	06 months
PATCH 20 Repair	**≥ 20.0**	≥ 0.7	5.00 - 5.25 L per 25kg bag	One 25kg bag yields 13 - 14 litres of mortar	Minimum 5mm per layer	06 months
PATCH 40 Repair	**≥ 40.0**	≥ 1.0	5.00 - 5.25 L per 25kg bag	One 25kg bag yields 13 - 14 litres of mortar	Minimum 5mm per layer	06 months
PATCH 60 Repair	**≥ 60.0**	≥ 1.5	5.00 - 5.25 L per 25kg bag	One 25kg bag yields 13 - 14 litres of mortar	Minimum 5mm per layer	06 months
FLEX JC 2K Joints	–	≥ 0.5 Concrete	2.5 : 1 powder:liquid	0.4kg per linear metre — 10cm wide, 2mm thick	Minimum joint width 2mm	06 months
BuMaFILL 30 Non-shrink grout	**≥ 30.0**	≥ 0.5	3.50 - 3.75 L per 25kg bag	~76 bags yield 1m³ of mortar	Minimum cavity clearance 10mm	12 months
BuMaFILL 50 Non-shrink grout	**≥ 50.0**	≥ 0.8	3.50 - 3.75 L per 25kg bag	~76 bags yield 1m³ of mortar	Minimum cavity clearance 10mm	12 months
BuMaFILL 70 Non-shrink grout	**≥ 70.0**	≥ 1.2	3.50 - 3.75 L per 25kg bag	~76 bags yield 1m³ of mortar	Minimum cavity clearance 10mm	12 months
BuMaFILL 90 Non-shrink grout	**≥ 90.0**	≥ 1.5	3.50 - 3.75 L per 25kg bag	~76 bags yield 1m³ of mortar	Minimum cavity clearance 10mm	12 months

TopHARD: compressive strength to TCVN 3121-11:2022. **WTP MOTA**: class CS IV to EN 998-1:2016. Test standards for each product are printed on the product cards on pages 6 to 8.

THREE PAIRS THAT ARE OFTEN CONFUSED

IWR or WTP MOTA

WTP MOTA is the premium product, for elements that demand high waterproofing performance and long-term durability; **IWR** is the standard product. **WTP MOTA** is rendered straight onto fired clay brick with no base render; **IWR** for masonry and render needs a bonding coat on concrete.

Skim 2in1 IN or Skim 2in1 EX

Two different products: IN for interior walls and ceilings; EX for exterior walls and high-rise buildings — bond strength ≥ 0.8MPa and ≥ 1.2MPa.

PATCH 20 or PATCH 40 · PATCH 60

PATCH 20 must NOT be used on load-bearing members or where reinforcement is corroded — for those, choose **PATCH 40** or **PATCH 60**.

SPECIALITY MASONRY, RENDER AND WALL FINISHING

3 masonry and render mortars for specific conditions — waterproofing, moisture resistance, lightweight blocks — and 2 thin-coat skim renders in place of the traditional skim coat.



IWR

READY-MIXED MASONRY & RENDERING MORTAR · WATERPROOF · MOISTURE RESISTANT

Ready-mixed mortar of Portland cement, selected aggregates and a powdered water-repellent polymer additive — a waterproof, moisture-resistant mortar whose strength and bond are superior to site-batched mortar. Masonry, render and repair, interior and exterior, wherever waterproofing and moisture resistance are required.

≥ 10.0MPa	≥ 0.5MPa	≤ 5%	02 - 03hours
Compressive · 28 days	Bond strength	Water absorption	Drying per 10mm layer

25kg/bag · Colour: Grey · Shelf life 06 months
MIXING WATER 3.38 - 3.63L per 25kg bag
COVERAGE ~0.7m²/bag at 20mm thickness
MESH REINFORCEMENT Where the mortar layer exceeds 10mm

CLASSIFICATION
ASTM C1714/C1714M-26 · C270-26 Type S · C1384-23 Type WR

TEST STANDARDS
ASTM C1384-23
ASTM C1506-24
ASTM C349-24
ASTM C185-20
ASTM C1403-22a

IWR



WTP MOTA

CEMENT-BASED WATERPROOFING MORTAR · DIRECT-TO-BRICK · PREMIUM GRADE

Ready-mixed cementitious waterproofing mortar rendered straight onto fired clay brickwork, with no base render — render and waterproofing in one layer, for external walls exposed to wind-driven rain and water-immersed elements. The premium product of the line; the standard product is **IWR**.

≥ 15.0MPa	≥ 0.5MPa	5m	12mm
Compressive · 28 days · CS IV	Bond to brick	Head of water · Pass	Per layer · Max 48mm

25kg/bag · Colour: Grey · Shelf life 06 months
MIXING WATER 3.75 - 4.00L per 25kg bag
COVERAGE ~2.0kg/m² per 1mm

CLASSIFICATION · CERTIFICATION
EN 998-1:2016 · OC · CS IV · W2
Capillary absorption
≤ 0.20kg/(m²·min$^{0.5}$) · W2

TEST STANDARDS
TCVN 3121-11:2022
EN 1015-11:2019
TCVN 3121-18:2022
EN 1015-18:2002
TCVN 3121-12:2022
EN 1015-12:2016
TCVN 3121-10:2022
EN 1015-21:2002
ASTM D6904-03(2022)
ASTM D7088-17

WTP MOTA



AAC-J

THIN-BED MORTAR FOR AAC BLOCKS & PANELS · THIN JOINT 2 - 5mm

Ready-mixed mortar for laying AAC blocks and panels, concrete blocks, hollow blocks, fired clay bricks or fly-ash bricks — polymer additives give high bond strength, water retention and stability. Traditional joints of 12 - 20mm are reduced to 2 - 5mm; gauged with water only; no curing required.

≥ 10.0MPa	≥ 0.4MPa	≥ 0.8MPa	2 - 5mm
Compressive · 28 days	Adhesion to AAC	Adhesion to concrete	Joint thickness

25kg/bag · Colour: Grey · Shelf life 06 months
MIXING WATER 5.75 - 6.25L per 25kg bag
COVERAGE 600 × 200 × 100mm block —
At 2mm: 13.5m² · 3mm: 9.0m² · 4mm: 6.7m² per bag

TIME
Setting **≥ 180 minutes** · Adjustment **≥ 5 minutes** · No curing required

TEST STANDARDS
TCVN 9028:2011

AAC-J



Skim 2in1 IN

THIN-COAT WALL SKIM MORTAR · INTERIOR · 5mm PER LAYER

Premium polymer-modified cementitious skim render — water retention, high adhesion, easy application. Finishes interior walls and ceilings in place of the traditional skim coat; applied directly to AAC with no base render and no primer coat. For exterior work use **Skim 2in1 EX**.

≥ 10.0MPa	≥ 0.8MPa	5mm	~1.5kg/m²
Compressive · 28 days	Adhesion to concrete	Per layer · Max 10mm	Coverage per 1mm

25kg/bag · Colour: Grey or white (on request) · Shelf life 06 months
MIXING WATER 5.75 - 6.00L per 25kg bag
DRYING PER LAYER 04 - 12 hours
PRIMER COAT not required

SUITABLE SUBSTRATES
Concrete · Cement-based renders · Pressed concrete block · AAC blocks and panels · Precast wall panels

TEST STANDARDS
TCVN 7239:2014
TCVN 3121-3:2022
TCVN 3121-11:2022
TCVN 3121-12:2022
TCVN 3121-17:2022

SKIM 2IN1 IN



Skim 2in1 EX

THIN-COAT WALL SKIM MORTAR · EXTERIOR · HIGH-RISE BUILDINGS

Premium polymer-modified cementitious skim render with a mix design specific to exterior exposure: finishes exterior walls in place of the traditional skim coat, in particular concrete walls of high-rise buildings and building façades. The surface must receive a protective paint or coating.

≥ 10.0MPa	≥ 1.2MPa	5mm	~1.5kg/m²
Compressive · 28 days	Adhesion to concrete	Per layer · Max 10mm	Coverage per 1mm

25kg/bag · Colour: Grey or white (on request) · Shelf life 06 months
MIXING WATER 5.75 - 6.00L per 25kg bag
DRYING PER LAYER 04 - 12 hours
PRIMER COAT not required

SUITABLE SUBSTRATES
Concrete · Cement-based renders · Precast concrete wall panels

TEST STANDARDS
TCVN 7239:2014
TCVN 3121-3:2022
TCVN 3121-11:2022
TCVN 3121-12:2022
TCVN 3121-17:2022

SKIM 2IN1 EX

FLOOR HARDENING, REPAIR AND JOINTS

Dry-shake hardening of fresh concrete floors, three grades of concrete repair mortar and a two-component mortar for joints and cracks.



TopHARD

FLOOR SURFACE HARDENER · DRY-SHAKE · CEMENT BASED

Ready-mixed dry-shake floor hardener of Portland cement, selected aggregates, polymers and pigments resistant to alkali and UV — broadcast onto fresh concrete and power-floated into an abrasion-resistant floor of uniform colour. Not for floors exposed to chemicals.

≥ 60.0MPa	≥ 10.0MPa	≥ 7	3 - 5kg/m²
Compressive strength	Flexural strength	Mohs hardness	Normal areas · Grey

25kg/bag · Colour: Concrete grey · Green · Custom colour on request · Shelf life 06 months
COVERAGE, HEAVY-DUTY AREAS 5 - 11kg/m² (grey) · 7 - 13kg/m² (other colours)
WET-OUT BEFORE FLOATING 5 - 10 minutes

MOVEMENT JOINTS

Joint bays of **maximum 25m²** · Carried right through from the concrete slab to the floated surface · Seal the joints after 28 days

TEST STANDARDS

TCVN 3121-11:2022

TopHARD



PATCH 20

GENERAL-PURPOSE REPAIR MORTAR · 20MPa · SURFACE DEFECTS

Cementitious general-purpose repair mortar for non-structural defects: patching honeycombing, filling formwork holes and tie-rod holes, reforming chipped arrises, re-finishing surfaces before painting. Not for load-bearing members or corroded reinforcement — use **PATCH 40**, **PATCH 60**.

≥ 20.0MPa	≥ 3.0MPa	≥ 0.7MPa	≥ 7.5MPa
Compressive · 28 days	Flexural · 28 days	Adhesion to concrete	Compressive · 1 day

25kg/bag · Colour: Grey · Shelf life 06 months
MIXING WATER 5.00 - 5.25L per 25kg bag
COVERAGE One 25kg bag yields 13 - 14 litres of mortar
MINIMUM THICKNESS 5mm per layer

DO NOT USE ON

Load-bearing members or where reinforcement is corroded — use **PATCH 40** or **PATCH 60**

TEST STANDARDS

ASTM C349-24
ASTM C348-21
ASTM D7234-21

PATCH 20



PATCH 40

HIGH STRENGTH REPAIR MORTAR · 40MPa · CONCRETE STRUCTURES

High-strength repair mortar of high-strength cement, selected aggregates, silica fume, an expansive admixture and polymers: early strength development, non-shrink, high adhesion. Repairs concrete structures damaged by reinforcement corrosion and precast concrete units.

≥ 40.0MPa	≥ 6.0MPa	≥ 1.0MPa	≥ 15.0MPa
Compressive · 28 days	Flexural · 28 days	Adhesion to concrete	Compressive · 1 day

25kg/bag · Colour: Grey · Shelf life 06 months
MIXING WATER 5.00 - 5.25L per 25kg bag
COVERAGE One 25kg bag yields 13 - 14 litres of mortar
MINIMUM THICKNESS 5mm per layer

APPLICATION

Trowelled with a steel trowel or sprayed with spray equipment

TEST STANDARDS

ASTM C349-24
ASTM C348-21
ASTM D7234-21

PATCH 40



PATCH 60

VERY HIGH STRENGTH REPAIR MORTAR · 60MPa · LOAD-BEARING STRUCTURES

Very high strength repair mortar for heavily loaded structures, abrasion and aggressive environments — beams, columns and slabs in transport infrastructure, marine port structures, chemical plants. Rapid strength development returns the structure to service early.

≥ 60.0MPa	≥ 9.0MPa	≥ 1.5MPa	≥ 22.5MPa
Compressive · 28 days	Flexural · 28 days	Adhesion to concrete	Compressive · 1 day

25kg/bag · Colour: Grey · Shelf life 06 months
MIXING WATER 5.00 - 5.25L per 25kg bag
COVERAGE One 25kg bag yields 13 - 14 litres of mortar
MINIMUM THICKNESS 5mm per layer

REINFORCEMENT

Clean back to bright steel before patching — patching over rusted steel causes the repair to debond later

TEST STANDARDS

ASTM C349-24
ASTM C348-21
ASTM D7234-21

PATCH 60



FLEX JC 2K

FLEXIBLE JOINT COMPOUND · TWO-COMPONENT · CRACK-BRIDGING

Pre-packaged two-component cementitious mortar of high adhesion and flexibility: treats joints between precast concrete wall panels, CFC boards and plasterboard, and cracks in concrete and cement-based mortar surfaces. Not for movement joints or structural joints.

≥ 0.5MPa	≥ 0.75mm	≥ 20%	≥ 65
Adhesion · 28 days	Crack bridging	Elongation at break	Shore A hardness

07kg/set · 35kg/set · Colour: Grey or off-white · Shelf life 06 months
MIX RATIO 2.5 : 1 (powder:liquid)
COVERAGE 0.4kg per linear metre, 10cm wide, 2mm thick

WAITING TIME

Between layers **~2 hours** · Before finishing **24 hours** · Use the mix within **1 hour**

TEST STANDARDS

ASTM D4541-22
BS EN 14891:2017
ASTM D412-16(2021)
ISO 868:2003

FLEX JC 2K

NON-SHRINK GROUTS

One-component, non-shrink, self-levelling — gauged with clean water only. Four strength grades for machine bases, anchor bolts and structures from light to ultra-heavy loading.



BuMaFILL 30

CEMENTITIOUS NON-SHRINK GROUT · LIGHT DUTY · 30.0MPa

One-component, non-shrink, self-levelling cementitious grout — gauged with clean water only, it runs into complex cavities and fills them without entrapped air. For small machine and equipment bases, anchor bolts, gaps and wall pockets, props and light steel frames.

≥ 30.0MPa	≥ 10.5MPa	≥ 0.5MPa	10mm
Compressive · 28 days	Compressive · 1 day	Bond strength	Min. cavity clearance

25kg/bag · Colour: Grey · Shelf life 12 months
MIXING WATER 3.50 - 3.75L per 25kg bag
COVERAGE ~76 bags yield 1m³ of mortar

SETTING · SHRINKAGE · FLOW

Aggregate ≤ **2.5mm** ·
Initial set ≥ **05 hours** ·
Final set ≤ **12 hours** ·
Length change **0** ≤ **S** ≤ **+3** ·
Expansion, bleeding **0** ·
Initial flow ≥ **200mm**

TEST STANDARDS

TCVN 9204:2012
ASTM C1437-20
ASTM C349-24
ASTM C940-22
ASTM C403/C403M-23

BuMaFILL 30



BuMaFILL 50

CEMENTITIOUS NON-SHRINK GROUT · LIGHT TO MEDIUM DUTY · 50.0MPa

Non-shrink, self-levelling grout for the range between light and medium loading: light industrial machine bases, anchor bolts, light industrial steel columns, prestressing ducts, medium bridge structures, rail track beds, concrete repair.

≥ 50.0MPa	≥ 17.5MPa	≥ 0.8MPa	10mm
Compressive · 28 days	Compressive · 1 day	Bond strength	Min. cavity clearance

25kg/bag · Colour: Grey · Shelf life 12 months
MIXING WATER 3.50 - 3.75L per 25kg bag
COVERAGE ~76 bags yield 1m³ of mortar

SETTING · SHRINKAGE · FLOW

Aggregate ≤ **2.5mm** ·
Initial set ≥ **05 hours** ·
Final set ≤ **12 hours** ·
Length change **0** ≤ **S** ≤ **+3** ·
Expansion, bleeding **0** ·
Initial flow ≥ **200mm**

TEST STANDARDS

TCVN 9204:2012
ASTM C1437-20
ASTM C349-24
ASTM C940-22
ASTM C403/C403M-23

BuMaFILL 50



BuMaFILL 70

CEMENTITIOUS NON-SHRINK GROUT · HEAVY DUTY · 70.0MPa

Non-shrink grout reaching strengths equivalent to the high-strength concrete class, for heavy industrial works: heavy industrial machine bases and anchor bolts, vibrating equipment foundations, prestressed bridge girders, marine port structures, column heads in top-down construction.

≥ 70.0MPa	≥ 24.5MPa	≥ 1.2MPa	10mm
Compressive · 28 days	Compressive · 1 day	Bond strength	Min. cavity clearance

25kg/bag · Colour: Grey · Shelf life 12 months
MIXING WATER 3.50 - 3.75L per 25kg bag
COVERAGE ~76 bags yield 1m³ of mortar

SETTING · SHRINKAGE · FLOW

Aggregate ≤ **2.5mm** ·
Initial set ≥ **05 hours** ·
Final set ≤ **12 hours** ·
Length change **0** ≤ **S** ≤ **+3** ·
Expansion, bleeding **0** ·
Initial flow ≥ **200mm**

TEST STANDARDS

TCVN 9204:2012
ASTM C1437-20
ASTM C349-24
ASTM C940-22
ASTM C403/C403M-23

BuMaFILL 70



BuMaFILL 90

CEMENTITIOUS NON-SHRINK GROUT · ULTRA HEAVY DUTY · 90.0MPa

The summit of the non-shrink grout range, equivalent to ultra-high strength concrete (UHSC): large turbines and generators, ultra heavy anchor bolts, wind towers, port and offshore structures, chemical and petrochemical plants.

≥ 90.0MPa	≥ 31.5MPa	≥ 1.5MPa	10mm
Compressive · 28 days	Compressive · 1 day	Bond strength	Min. cavity clearance

25kg/bag · Colour: Grey · Shelf life 12 months
MIXING WATER 3.50 - 3.75L per 25kg bag
COVERAGE ~76 bags yield 1m³ of mortar

SETTING · SHRINKAGE · FLOW

Aggregate ≤ **2.5mm** ·
Initial set ≥ **05 hours** ·
Final set ≤ **12 hours** ·
Length change **0** ≤ **S** ≤ **+3** ·
Expansion, bleeding **0** ·
Initial flow ≥ **200mm**

TEST STANDARDS

TCVN 9204:2012
ASTM C1437-20
ASTM C349-24
ASTM C940-22
ASTM C403/C403M-23

BuMaFILL 90

COMPRESSIVE STRENGTH DEVELOPMENT BY AGE — GROUTS AND REPAIR MORTARS

Compressive · MPa	BuMaFILL 30	BuMaFILL 50	BuMaFILL 70	BuMaFILL 90	PATCH 20	PATCH 40	PATCH 60
After 1 day	≥ 10.5	≥ 17.5	≥ 24.5	≥ 31.5	≥ 7.5	≥ 15.0	≥ 22.5
After 3 days	≥ 15.0	≥ 25.0	≥ 35.0	≥ 45.0	≥ 10.0	≥ 20.0	≥ 30.0
After 7 days	≥ 22.5	≥ 37.5	≥ 52.5	≥ 67.5	≥ 15.0	≥ 30.0	≥ 45.0
After 28 days	≥ 30.0	≥ 50.0	≥ 70.0	≥ 90.0	≥ 20.0	≥ 40.0	≥ 60.0

Minimum values declared in the Technical data table of the TDS — grouts tested to TCVN 9204:2012 · ASTM C349-24, repair mortars to ASTM C349-24. Early strength determines when equipment and structures can be put into service — check against the designer's requirements.

SELECTION BY APPLICATION

Application	Products per the TDS
Laying fired clay brick and pressed concrete block walls	Re 75 to Sc 600 · 11 grades · IWR · AAC-J
Laying AAC blocks and panels — thin joints of 2 - 5mm	AAC-J
Rendering interior and exterior walls	Re 75 to Sc 600 · 11 grades · IWR
External walls exposed to wind-driven rain — render and waterproofing in one	WTP MOTA
Roof slabs, basement walls, negative-side waterproofing	WTP MOTA
Floor screed	Sc 100 to Sc 600 · 9 Sc grades
Finishing interior walls and ceilings — in place of the skim coat	Skim 2in1 IN
Finishing exterior walls, high-rise buildings	Skim 2in1 EX
Abrasion-resistant floors: car parks, warehouses, ramps	TopHARD
Patching honeycombing, tie-rod holes, surface defects	PATCH 20
Repairing structures damaged by reinforcement corrosion	PATCH 40
Heavily loaded structures, abrasion, aggressive environments	PATCH 60
Joints of precast wall panels, cement board, plasterboard	FLEX JC 2K
Grouting machine bases, anchor bolts	BuMaFILL 30 · BuMaFILL 50 · BuMaFILL 70 · BuMaFILL 90
Vibrating equipment foundations, turbines, marine ports	BuMaFILL 70 · BuMaFILL 90

QUICK COVERAGE FOR TAKE-OFF

Product	One 25kg bag yields, litres of mortar	Bags per 1m³ of mortar	Packaging
Re 75 to Sc 600 · 11 grades	12.5 - 13.0	~77 - 80	25kg/bag · 50kg/bag
IWR	~14.0	~71	25kg/bag
WTP MOTA	~12.5	~80	25kg/bag
Skim 2in1 IN	~16.7	~60	25kg/bag
Skim 2in1 EX	~16.7	~60	25kg/bag
PATCH 20	13 - 14	~71 - 77	25kg/bag
PATCH 40	13 - 14	~71 - 77	25kg/bag
PATCH 60	13 - 14	~71 - 77	25kg/bag
BuMaFILL 30	~13.2	~76	25kg/bag
BuMaFILL 50	~13.2	~76	25kg/bag
BuMaFILL 70	~13.2	~76	25kg/bag
BuMaFILL 90	~13.2	~76	25kg/bag

Product	Coverage by area or length — per the TDS	Packaging
AAC-J	600 × 200 × 100mm block · At 2mm: 13.5m² · 3mm: 9.0m² · 4mm: 6.7m² per bag	25kg/bag
TopHARD	Normal areas 3 - 5kg/m² (grey) · 5 - 7kg/m² (other colours)	25kg/bag
FLEX JC 2K	0.4kg per linear metre — 10cm wide, 2mm thick	07kg/set · 35kg/set

Litres of mortar per bag and bags per 1m³ of mortar are converted from the TDS coverage for a 25kg bag, rounded, with no allowance for wastage. Actual coverage varies with the flatness of the substrate, the applied thickness and workmanship — always carry out a trial application on a small area before full-scale work.

APPLICATION PROCEDURES FOR SIX MORTAR GROUPS



A Masonry, render, screed

Re 75 to **Sc 600**

*Applying **Re 75** render to a brick wall with a plastering trowel*

1 Bonding coat
Roughen concrete to ICRI CSP 2 - 3; apply a bonding coat of **BuMaLATEX** mixed with cement before rendering.

2 Machine mixing
Add the water for each grade (page 4) to the mixer, add the mortar and mix for 5 - 10 minutes.

3 Application
Wooden float or plastering trowel; each 10mm layer dries in 02 - 03 hours — let each layer dry before the next.

4 Curing
Mist with water for at least 7 days from application; reinforce thick layers with **BuMaMESH 70** / **BuMaMESH 150**.



B Waterproof render straight onto brick

IWR · **WTP MOTA**

***WTP MOTA** rendered straight onto a fired clay brick wall, with no base render*

1 Substrate
Brick wall with joints filled, clean; dampen, no standing water; make good cracks first. Rendered straight onto red brick, no bonding coat.

2 Mixing
IWR: 3.38 - 3.63L water per 01 bag of 25kg.
WTP MOTA: 3.75 - 4.00L — water first, then powder; stand 5 minutes, remix, use within 30 - 45 minutes.

3 Rendering
IWR: wooden float or plastering trowel, 10mm per layer.
WTP MOTA: thrown onto the brick with a mason's trowel, levelled with a float; 12mm per layer, 48mm maximum in total — water-immersed elements at least 40mm.

4 Drying time
IWR: each layer dries in 02 - 03 hours.
WTP MOTA: each layer dries in 15 - 20 hours; not when rain is imminent, in harsh sun or strong wind.
No curing required.



C Thin-bed laying

AAC-J

*Spreading **AAC-J** with a notched trowel onto lightweight concrete blocks*

1 Substrate
Substrate temperature 8°C to 35°C; sound surface, free of grease; wipe off dust and dampen, removing excess water.

2 Mixing
5.75 - 6.25L water per 01 bag of 25kg; mixer ~300 - 600rpm; stand 3 - 5 minutes then remix, adding no water.

3 Spreading
Notched trowel over the dampened block, 2 - 3mm thick (or as specified), then lay the block on top.

4 Checking
Check line and level regularly; wash tools while the mortar is fresh. No curing required.



D Thin-coat wall finishing

Skim 2in1 IN · **Skim 2in1 EX**

***Skim 2in1 IN** finishing an interior wall*

1 Substrate
Roughen concrete to ICRI CSP 1 - 2; mist pressed block, lightweight block and precast panels before application.

2 Mixing
5.75 - 6.00L water, slowly add 01 bag of 25kg; stand 5 minutes then remix — if the mix stiffens, remix without adding water.

3 Skimming
Steel trowel or float; each 5mm layer dries in 04 - 12 hours, let each layer dry before the next.

4 Limits
Not over 5mm per layer or 10mm in total (2 layers). Exterior walls must receive a protective paint or coating as specified.



E Concrete repair

PATCH 20 · **PATCH 40** · **PATCH 60**

*Applying **PATCH 40** to repair a damaged area of concrete*

1 Substrate
Substrate temperature 8°C to 35°C; sound, clean surface; dampen, remove excess water. Reinforcement cleaned to bright steel.

2 Machine mixing
Pour 5.00 - 5.25L water into the drum, slowly add the powder, low speed 300 - 500rpm, mix for 6 - 8 minutes.

3 Trowel · Spray
Steel trowel, pressed firmly into the repair — **PATCH 40**, **PATCH 60** can be sprayed; minimum 5mm per layer.

4 Finishing
Level and finish with a steel trowel. No curing required.



F Non-shrink grouting

BuMaFILL 30 · **BuMaFILL 50** · **BuMaFILL 70** · **BuMaFILL 90**

*Pouring **BuMaFILL 70** for steel column bases on a major project*

1 Substrate · Formwork
Clean the concrete; saturate with water (SSD), no standing water; formwork tight and rigid.

2 Mixing
3.50 - 3.75L clean water per 25kg bag; add the powder slowly to the water, paddle-mix until uniform, free of lumps.

3 Pouring
Pour continuously from one side to fill the cavity (≥ 10mm); pass a steel wire back and forth underneath.

4 Curing
Keep the surface damp after application to prevent premature water loss.

TWO SPECIFIC PROCEDURES · APPLICATION LIMITS



G Dry-shake floor hardening

TopHARD

*Broadcasting **TopHARD** onto fresh concrete before power floating*

1 Levelling
Level the concrete with a long aluminium straightedge after placing and before bleed water appears.

2 Broadcasting
Broadcast by hand once the bleed water has gone, at the full rate; let the powder wet out for 5 - 10 minutes until it darkens.

3 Floating
When the mix is plastic or near initial set, power-float at slow speed, final pass at high speed; steel trowel where access is difficult.

4 Movement joints
Cut right through from the slab to the floated surface, bays of maximum 25m²; after 28 days seal with an alkali-resistant sealant.



H Two-component joint treatment

FLEX JC 2K

*Applying **FLEX JC 2K** and bedding glass-fibre mesh into a panel joint*

1 Preparation
Clean joints with a wire brush, minimum depth 5mm; cut cracks to a V-groove of at least 10mm × 5mm; no standing water.

2 Mixing
10kg of liquid, slowly add 25kg of powder (powder:liquid ratio 2.5 : 1); stand 3 minutes then remix; use within 1 hour.

3 Two layers · Mesh
First layer at least 10cm wide, bed glass-fibre mesh while wet; about 2 hours later apply the second layer, about 2mm thick.

4 Finishing
Allow 24 hours, apply a thin skim coat; allow at least 24 hours more, then sand down and paint.

APPLICATION LIMITS PER THE TDS

Product	Substrate temperature	Thickness, dimensions	Mesh reinforcement	Curing
8 grades Re 75 to Sc 350	8 - 35°C	–	Mortar layer over 3cm	Mist-cure for at least 7 days
Sc 400 · Sc 500 · Sc 600	8 - 35°C	–	Mortar layer over 2cm	Mist-cure for at least 7 days
IWR	8 - 35°C	–	Mortar layer over 10mm	Not required
WTP MOTA	8 - 35°C	12mm/layer · Max 48mm	–	Not required
AAC-J	8 - 35°C	Joint thickness 2 - 5mm	–	Not required
Skim 2in1 IN · Skim 2in1 EX	8 - 35°C	5mm/layer · Max 10mm	–	Not required
TopHARD	8 - 35°C	Joint bays of maximum 25m²	–	Not required
PATCH 20 · PATCH 40 · PATCH 60	8 - 35°C	Minimum 5mm/layer	–	Not required
BuMaFILL 30 to BuMaFILL 90	8 - 35°C	Minimum cavity clearance 10mm	–	Keep the surface damp
FLEX JC 2K	8 - 35°C	Minimum joint width 2mm	Glass-fibre mesh between the two layers	Not required

PRODUCT-SPECIFIC PRECAUTIONS

WTP MOTA
Hydrostatic-pressure and negative-side waterproofing elements follow the separate instructions of the BUMATECH technical department — number of coats and total thickness differ from vertical walls.

PATCH 20
Do NOT use on load-bearing members or where reinforcement is corroded.

Skim 2in1 EX
Avoid strong sunshine, high wind or imminent rain; protect freshly applied surfaces. The surface must receive a protective paint or coating as specified.

BuMaFILL 30 to BuMaFILL 90
Do not add cement, sand or any admixture. Strongly alkaline — wear safety goggles and gloves during application.

TopHARD
Not for floors exposed to chemicals or to materials that react with cement. Colour may vary with the water/cement ratio of the concrete, the cement type and the application rate.

FLEX JC 2K
Do NOT use in movement joints or structural joints. Use the white grade where a skim coat and emulsion paint are to follow.

SIX SAFETY NOTES — COMMON TO THE CEMENT-BASED PRODUCTS

Skin and eyes
Portland cement is alkaline — with perspiration it may cause skin irritation or mild burns; dry or wet cement can cause serious eye injury.

Eye contact
Rinse immediately under gently running clean water for 10 - 15 minutes without rubbing; if pain persists, seek medical attention.

Protective equipment
Gloves · Safety goggles and fine-dust mask when mixing · Protective clothing.

Crystalline silica dust
Do NOT swallow; crystalline silica dust may cause lung disease or cancer — wear a dust mask or respirator.

Working environment
Well-ventilated area, away from confined spaces, children and pets; avoid inhaling cement dust when mixing dry material.

Surplus material and SDS
Reseal the bag after use; not down drains — let it harden, dispose of as construction waste. See the latest SDS on the BUMATECH website.

BUMATECH
Tile Adhesive · Waterproofing · Dry Mix · Construction Chemicals

PRODUCT LINE CATALOGUE · 2027

BUILD BETTER · LIVE GREENER

COMPLETE SYSTEM SOLUTIONS

3.WP · WATERPROOFING

Waterproofing over rendered walls and screeded floors — **FLEX WP 2K**, **BuMaLASTIC**. Mortar substrates of **Sc 100**, **Sc 150**, **Sc 200** are primed with **PRIMER MOI** after 1 day; **BuMaLATEX**, **LATEX SP** are gauged in place of water with the Re and Sc grades.

4.SLC · SELF-LEVELLING COMPOUND

Levelling concrete floors and screeded floors before the finishing layer — **BuMaLEVEL**, **SLU 210.16**, **SLO 540.40**; primed with **BuMaPRIMER**.

1.TA · TILE ADHESIVE

Tiling onto floors and walls levelled with cement-based mortar — **BuMaGREEN**, **BuMaFIX**, **BuMaFLEX**.

2.TG · TILE GROUT

Grouting after tiling — **CeRaCOLOR**, **CeRaCOLOR USG**, **CeRaPOXY TG**.

THE 25 PRODUCTS OF THE LINE

Re 75 Ready-mixed masonry & rendering mortar	**Re 100** Ready-mixed masonry & rendering mortar	**Sc 100** Ready-mixed dry mortar	**Sc 150** Ready-mixed dry mortar	**Sc 200** Ready-mixed dry mortar
Sc 250 Ready-mixed dry mortar	**Sc 300** Ready-mixed dry mortar	**Sc 350** Ready-mixed dry mortar	**Sc 400** Ready-mixed dry mortar	**Sc 500** Ready-mixed dry mortar
Sc 600 Ready-mixed dry mortar	**IWR** Ready-mixed masonry & rendering mortar	**WTP MOTA** Cement-based waterproofing mortar	**AAC-J** Thin-bed mortar for AAC blocks & panels	**Skim 2in1 IN** Thin-coat wall skim mortar
Skim 2in1 EX Thin-coat wall skim mortar	**TopHARD** Floor surface hardener	**PATCH 20** General-purpose repair mortar	**PATCH 40** High strength repair mortar	**PATCH 60** Very high strength repair mortar
FLEX JC 2K Flexible joint compound	**BuMaFILL 30** Cementitious non-shrink grout	**BuMaFILL 50** Cementitious non-shrink grout	**BuMaFILL 70** Cementitious non-shrink grout	**BuMaFILL 90** Cementitious non-shrink grout

SINGAPORE GREEN BUILDING COUNCIL MEMBER

VGBC STANDARD MEMBER

Company-level certification — member of SGBC and VGBC

The figures in this document were established by laboratory testing under standard conditions; actual values vary with temperature, humidity, accompanying materials, application method and workmanship. The user is responsible for verifying suitability for the intended use. BUMATECH reserves the right to update technical information without prior notice — check the latest TDS version on the website before every project.

HEAD OFFICE
154/1/5 Cong Lo,
Tan Son Ward,
Ho Chi Minh City

OFFICE
91 Hoang Bat Dat,
Tan Son Ward,
Ho Chi Minh City

FACTORY
820 Ap Chanh,
Duc Lap Commune,
Tay Ninh Province

BROCHURE CONSTRUCTION MORTAR

COMPANY PROFILE BUMATECH

ZALO OA

Hotline 0979 793 804 · Projects 0914 765 778

BUMATECH.VN