



# MARS TILE XS

## DESCRIPTION

**MARS Tile XS** is supplied as a single component pack, which requires only the on-site addition of clean water to produce a consistently high performance adhesive, suitable for the following substrates:

- Concrete
- Ceramic Tile & Stone
- Cement Plaster
- Brick Masonry
- Concrete Masonry
- Cement Terrazzo
- Cement Mortar Beds
- Ceramic Baker Board

## USES

**MARS Tile XS** is a high quality adhesive for the permanent fixing of ceramic wall and floor tiles including porcelain and fully vitrified tiles, ceramic mosaics, quarry tiles, dark natural stone, terrazzo and brick slips. Typical uses include:

- Wet areas – kitchens and bathrooms
- Swimming pools
- Fixing marble tiles (up to 40 kg/m<sup>2</sup> on vertical)
- Fixing heavy equipment e.g. brick slips, concrete tiles
- Bridges, underpasses and high rise buildings
- External claddings

## ADVANTAGES

- Formulated to suit Middle East conditions
- Enhanced bond and tensile strengths
- Good open time & slip resistance
- Safe and easy to use
- Water resistant – suitable for submerged conditions
- Early return to service

## STANDARDS COMPLIANCE

**MARS Tile XS** conforms to EN 12004, BS 5980 and ANSI 118.4. The application should be in accordance to BS 5385.

## PROPERTIES

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Density : 1700kg/m<sup>3</sup>

Tensile adhesion strength  
(EN 1348 – stoneware tile)

28d sc : >1.5 N/mm<sup>2</sup>

7d sc+21d water : >1.0 N/mm<sup>2</sup>

14d sc+14d 70°C+1d sc : >2.0 N/mm<sup>2</sup>

Open time by tensile adhesion  
Strength (EN 1346-earthenware tiles)

5min : >1.5 N/mm<sup>2</sup>

20min : >1.0 N/mm<sup>2</sup>

30mins : >0.7 N/mm<sup>2</sup>

Transverse Deformation  
(EN12002)

14 d 23°C/95%RH+14 d sc

Deflection at max. force : >3.0 mm

Stress at max. force : >2.5 N/mm<sup>2</sup>

Deflection at break : >3.0 mm

Stress at break : >2.3 N/mm<sup>2</sup>

	Glazed Tiles	Impervious Tiles	Quarry Tiles
Shear adhesion(ANSI 118.4) (N/mm <sup>2</sup> )			
48h sc	: >0.7	-	-
7d sc	: >2.09	>1.6	>1.2
7d sc+ 7d wate	: >1.4	>1.05	-
4 weeks sc	: >2.4	>1.5	>1.35
12 weeks sc	: >2.5	>1.7	>1.3

Product Identity

Consistency : Powder

Colour : White or grey

Bulk Density (kg/m<sup>3</sup>) : 1300

Dry Solids Content : 100

Application Data

Consistency of the mix : pasty

pH of mix : 13

Application Temperature range : from+5°C to +40°C

Open time (Accordg. to EN1346) : >30 minutes

Adustability Time : 45 minutes

Final Performances

Resistance to alkalis : excellent

Resistance to oils : excellent (poor in Vegetable oil)

Resistance to solvents : excellent

Temperature when in use : from-30°C to +90°C

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## TECHNICAL CHARACTERISTICS

**MARS Tile XS** is a grey or white powder composed of cement and graded aggregates. It contains a high quality of synthetic resins and a special admixtures. A mortar with the following features are obtained when mixed with water:

- Easily workable
- **Highly thixotropic:** **MARS Tile XS** can be applied on vertical surface without slumping or letting the tiles slip, even for heavy tiles. Tiles can be installed from the top towards the bottom without using spacer pegs
- Perfect adherence to all material normally used in building
- Hardens without appreciable shrinkage
- Extend open time

## RECOMMENDATIONS

**DO NOT** use **MARS Tile XS**

- On concrete subject to high shrinkage
- On walls and floors subject to strong movement or vibration (wood, fibre-cement, etc.)
- On metal surface

## APPLICATION PROCEDURE

### Preparing the substrate

The substrates must be flat, mechanically resistant, free of loose parts, grease, oils, paints, wax, etc. Damp substrates can slow down the setting of **MARS Tile XS**.

Cement substrates should not be subject to shrinkage after the installation of the ceramic tiles, therefore, during spring and summer, renders must cure at least one week for each cm of thickness and cement screeds must have an overall cure time of at least 28 days.

Dampen with water to cool surfaces which have become heated from exposure to sunlight.

Gypsum substrates and anhydrite screeds must be perfectly dry (max. residual moisture 0.5%), sufficiently hard and free from dust. It is absolutely essential that they must be treated with **Primer G** or **Eco Primer T**, while areas subject to extreme dampness must be primed with **Primer S**.

### Preparing the Mix

Mix **MARS Tile XS** with clean water until a smooth, lump-free paste is obtained. Leave to rest approximately 5 minutes and re-stir.

In a clean mixing container pour in 5 litres of clean water. Add the 20kg bag of **MARS Tile XS** powder. Using an electric mix (approx. 300RPM) mix until a smooth, lump-free paste is obtained.

Leave the mix to rest for approximately 5 minutes and then re-stir.

### Spreading the mix

**MARS Tile XS** is applied to the substrate using a notched trowel. Choose a trowel that allows for complete coverage of the tile back.

To achieve a good adhesion, spread an initial thin layer of **MARS Tile XS** on the substrate using the flat side of the trowel. Immediately after, apply the desired thickness of **MARS Tile XS** using a suitable notched trowel, depending on the type and size of the tiles.

For external ceramic tiles floors and walls, sizes greater than 900 cm<sup>2</sup>, floors subject to heavy loads, when applying in swimming pools and basins filled with water, spread also the adhesive on the back of the tiles (back-buttering) in order to ensure a complete coverage.

### Installing the tiles

There is no need to wet the tiles before installing them. Only with very dusty backs it is recommended to dip the tiles in clean water.

Tiles should be installed under a firm pressure to ensure good coverage of the adhesive.

In normal temperatures and humidity conditions, the open time of **MARS Tile XS** is approximately 30 minutes. Unfavourable weather conditions (strong sun, wind, high temperatures, etc.) or a highly absorbent substrate can reduce the open time, even to just a few minutes.

It is therefore necessary that careful checks be made to ensure that a skin does not form on the surface of the spread adhesive, which should stay fresh. If not, re-freshen the adhesive by re-spreading with a notched trowel.

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It is not recommended to wet the adhesive with water once a skin has formed because, instead of dissolving the skin, the water will form an anti-adhesive film. Tiling installed with **MARS Tile XS** must not be washed or exposed to rain for at least 24 hours and must be protected from frost and strong sun for at least 5-7 days.

## Spot-bonding Insulating materials

For spot-bonding sound-deadening or insulating panels, apply **MARS Tile XS** with a trowel or a float.



## GROUTING AND SEALING

Wall joints can be grouted after 4-8 hours and floor joints can be grouted after 24 hours with cementitious or epoxy grouts, available in different colours.

## CLEANING

Tools and containers should be cleaned with plenty of water while **MARS Tile XS** is still fresh. Surfaces should be cleaned with a damp cloth, before the adhesive dries.

## CONSUMPTION

A 20kg bag covers 6 to 7.5m<sup>2</sup> with a square notched trowel 6 x 6 x 6 mm and 4 to 5m<sup>2</sup> with a 6 x 10 x 6 mm square notched trowel.

Note :

Coverages shown are approximate and are given for estimating purposes only. Actual job-site coverages may vary according to the tile size and thickness, job conditions and setting practices. For coverage value contact Betuv Insulation Material Industries LLC.

## PACKAGING

**MARS Tile XS** white and grey are available in 20kg bags.

## STORAGE

**MARS Tile XS** can be stored 12 months in a normal environment in original packaging in a dry, elevated area.

## SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

**MARS Tile XS** contains cement that when in contact with sweat or other body fluids causes an irritant alkaline reaction and allergic reactions to those predisposed. It can cause damage to eyes. It is recommended to use protective gloves and goggles and to take the usual precautions for handling chemicals. In case of contact with eyes or skin wash immediately with plenty of water and seek medical attention.

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