

# Bostik MC 400 S2 Tile adhesive

Date: 15 September 2020

## YOUR SMART ADVANTAGES

- **Rapid setting Adhesive.**
- **Grout after 2 Hours.**
- **Polymer modified enhanced product.**
- **Improved flexural strength.**
- **Internal/external wall & floor adhesive**
- **For use on floors & walls.**

**BOSTIK MC400-S2** is a highly polymer reinforced cement-based, fast setting, thin-bed wall & floor tile adhesive, which conforms to BS EN 12004 Type C, Class 2FTE-S2). It is recommended when fixing ceramic and stone FLOOR and WALL tiles, in some of the most heavily trafficked interior & exterior locations where movement & vibration can be expected. **BOSTIK MC400-S2** has a 1-hour working pot-life with an extended "wet-tack" open time and rapidly cures to an initial set at 2 hours, which allows foot traffic after three hours. **BOSTIK MC400-S2** cures to a high bond strength, with excellent water-resistance and is also recommended in frequently wet & immersed area

### Surface Preparation

The substrate must be clean, dry, firm and free of dust, dirt, oil, grease and loose flaking coatings. It must also be structurally sound and strong enough to support the expected traffic loading. Timber boarding should then be over-laid with Tile Backer boards, screw fixed to support battens at 300mm centres to provide a dimensionally stable background. All boards must be level, showing no edge protrusions and be fixed in place with a 0.5 to 1mm gap to avoid expansion stresses between the boards and around the wall perimeters. Do not apply onto bare, unsealed gypsum plaster or anhydrite floor screed before first priming this type surface with two coats of neat Universal Primer the first diluted 1 to 1 and the second neat.

### Mix Preparation:

**BOSTIK MC400-S2** should be added to water in a clean container

Whilst mechanically stirring and mixed thoroughly to give a soft, slump-free, easily worked mortar.

The recommended mixing proportions by volume are approximately 5.5 litres of water per 20kg. The consistency of the paste can be adjusted with slight additions of water or powder at the initial mixing stage, however part-used adhesive should never be "freshened up" with later water additions but should always be discarded when it loses its' workability. In ideal conditions (20°C room temperature), **BOSTIK MC400-S2** will remain workable for up to 1 hour at 20°C and then reach final set after 3 - 4 hours, after which time it is sufficiently well cured to permit grout application on both walls & floors.

### Application Method:

For fixing ceramic tiles or mosaics, use a notched trowel to give a ribbed mortar bed on the substrate, into which the tiles are firmly bedded with a twist and slide action to ensure full contact. Use a 3mm x 3mm notch at 6mm centres for mosaics and thin flat backed wall tiling, a 5mm x 5mm notch at 10mm centres for general wall tiling and 10mm x 10mm notch at 16mm centres for floor tiling. The position of the tiles can be adjusted up to 10 minutes after initial fixing. Open time of the exposed mortar bed is approximately 30 minutes and it is recommended that tiles with raised or studded back profiles, should be back-buttered to ensure solid bed fixing. Do not trowel out an area of adhesive greater than can be tiled over within a 30-minute period. Do not apply any cement-based adhesive onto bare, unsealed gypsum plaster or anhydrite screeds and do not allow adhesive residues to set & harden on the tile face. Do not mix or apply this adhesive when air or ground temperatures are forecast to be below 5°C or greater than 35°C at any time during the first 24 hours after application.

### Coverage:

When fixing on a level, even surface using a 10mm notched trowel, **BOSTIK MC400-S2** will cover at a rate of about 4kg per sq. mtr for heavy-duty, studded tiles. When applying wall tiles, the product will cover at about 2.5 kg per sq. mtr.

### Grouting:

Grouting may proceed as soon as the tile bed is sufficiently firm, which for **BOSTIK MC400-S2** will be after 3 hours at room temperature. This period however will be extended in cold conditions. When the adhesive is fully set, wall & floor joints can be grouted using **BOSTIK grouts**

### Storage & Packaging:

**BOSTIK MC400-S2** is supplied in 20kg multi-ply, moisture resistant paper sacks and has a storage life of not less than 12 months if stored in dry, un-opened conditions. Should further technical information be required, contact the Bostik Technical hotline on +35318624999.

## Health & Safety:

Always ensure that appropriate PPE is worn when mixing & applying this product to ensure protection from airborne dust and skin contact with the mixed liquid product. Wash hands after use and launder stained clothing. Do not consume food when working with this material and keep children & animals away from any possible risk of contact. A complete Bostik material safety data sheet is available on request or online at [www.bostik.ie](http://www.bostik.ie)

## Disclaimer:

The information provided by this Technical data sheet is given in good faith and is to the best of our current knowledge true and accurate, however it is given without guarantee, as conditions of use and workmanship involved are both beyond our control. All information supplied is subject to the company's terms and conditions of sale, copies of which are available on request

## PRODUCT CHARACTERISTICS

Colour	Grey
Form	Powder
Specific Gravity	1.1 dry, 1.8 when mixed as directed
Composition	Portland cement blend
Product Code	
Storage/Shelf Life	Store for up to 12 months from date of manufacture in original, unopened packaging under cool, dry, conditions within the temperature range of +5°C to +30°C and out of direct sunlight. Protect from frost.

## TYPICAL PERFORMANCE DATA (Approx.)

Application Temperature	+5°C to +30°C
Service Temperature	-15°C to +70°C
Coverage	Will cover at a rate of about 4.0kg per sq. mtr for floor tile fixing and at about 2.5 kg per sq. mtr. When fixing wall tiles
Drying Times	Open time is 40 minutes & initial set is 3 hours
Solvent for Cleaning Up	Water

## DIRECTIONS FOR USE

IMPORTANT: Before using Bostik Mc 400 refer to the relevant Health & Safety Data Sheet, available at [www.bostik.co.uk](http://www.bostik.co.uk).

## PREPARATION

1. The receiving substrates must be clean, firm and free of dust, dirt, oil, grease and loose flaking coatings. They must also be structurally sound and strong enough to support the weight of the tiles being fixed.
2. Bostik mc400 can be applied to dry or damp surfaces however moisture sensitive materials must be dry and remain dry after fixing. Worn or porous masonry surfaces should be sealed with BOSTIK FLEXIBOND diluted as 1 to 3 with water.

3. Do not apply onto bare, un-sealed gypsum plaster or anhydrite floor screeds before first sealing this type surface with two coats of BOSTIK PRIMER.
4. In wet areas such as showers & wet-rooms plywood and other backer boards should be protected with the Evo-stik TANKING KIT to prevent water ingress through to the substrate.

## APPLICATION

1. Bostik mc 400 should be added to water in a clean container whilst mechanically stirring and mixed thoroughly to give a soft, slump-free, easily worked mortar. The recommended mixing proportions by volume are 1-part water to 4 parts powder (approx. 5 litres per 20kg sack). The consistency of the paste can be adjusted with slight additions of water or powder at the initial mixing stage however part-used adhesive should never be "freshened up" with later water additions.
2. Bostik Mc400 will remain useable for about 40 minutes and should not be applied in temperatures below 5°C. In ideal conditions (20°C), this thin-bed adhesive will set after about 2 to 3 hours. Expansion joints should be planned and installed in large floor areas in accordance with BS 5385.
3. For fixing ceramic tiles or mosaics, use a notched trowel to give a ribbed mortar bed on the substrate of no more than 6mm, into which the tiles are firmly bedded with a twist and slide action to ensure full contact.
4. Use a 6mm x 6mm notch at 10mm centres for general wall tiling and 10mm x 10mm notch at 16mm centres for floor tiling. The position of the tiles can be adjusted up to 10 minutes after initial fixing.
5. Open time of the exposed mortar bed is approximately 20 minutes, depending on surface porosity and site conditions. It is recommended that tiles with raised or studded back profiles, (or in situations where dampness is likely after tiling), should be buttered to ensure solid bed fixing.
6. Do not trowel out an area of adhesive greater than can be tiled over within a 10 minute period. Surfaces that are rough or uneven may first be levelled with a SELF-LEVELLING COMPOUND and when sufficiently firm (24 – 48 hours later), is followed by an application of Bostik Mc 400 adhesive with a final bed depth of 2 to 3mm thickness.
7. Maximum recommended bed depth is 6mm. When fixing moisture sensitive light coloured natural stone, a white fast setting adhesive should be used to promote early drying & strength development

## SURFACE CONSIDERATIONS

### FLOORS

#### New concrete

Before covering and after curing, concrete should be left to dry out by exposure to air for at least 6 weeks. Any falls required in the system should be formed in the new concrete and not the tiling layer.

#### New sand/cement screeds

Before covering and after curing, screeds should be left to dry out by exposure to air for at least 3 weeks. It is recommended that screeds should have a relative humidity level of 75% as tested by an air hygrometer. **Existing concrete/screed bases**

Existing cementitious substrates should be sound and dry. Any unsound areas should be removed, replaced and treated as a new screed or concrete.

### EXISTING FLOOR TILES

All loose tiles should be removed and hollows filled before tiling. Existing tiles should be thoroughly cleaned and degreased before tiling to remove all contaminants. Consideration should be given to mechanically abrading the tile surface, particularly with quarry tiles, to ensure a good bond can be formed.

### VINYL TILE SHEET

Vinyl tiles should only be tiled if they are rigid and firmly fixed to their base. Any loose areas should be removed and the whole area thoroughly degreased before fixing. The surface must be sufficiently regular to receive



FM 01696  
BS EN ISO 9001:2008

an even bed thickness of adhesive. Prime with EVO-STIK EVO-FIX pre-diluted 1:2 with water. Cushioned, soft types of flooring are not suitable and must be completely removed prior to tiling.

#### MASTIC ASPHALT

Asphalt must be rigid and solidly fixed. Only internal, flooring grade asphalt should be tiled. Never tile onto external roofing grade asphalt as this will be too soft to acceptably receive tiles. Prime with Bostik SHP PRIMER

#### CLEANING

1. Uncured product may be removed using cloths lightly dampened with water after carefully scraping off the bulk of the adhesive paste.
2. Cured product can only be removed by mechanical means.

#### STORAGE

Store in un-opened bags clear of ground and in cool dry conditions. Protect from excessive draught and use within 6 months.

#### PRECAUTIONS IN USE

For any application not covered please contact Technical Services on +353 1 8624998 or visit [www.bostik.ie](http://www.bostik.ie) for advice.

Recommendations and suggestions are for guidance only, since conditions of use are completely beyond our control.

For health and safety instruction, first aid measures and spillage and disposal instructions, see separate Health and Safety Data sheet for .....Bostik Mc400....., available at [www.bostik.ie](http://www.bostik.ie).



FM 01696  
BS EN ISO 9001:2008

This disclaimer is issued by Bostik Limited ("the Company") and applies to the use of any products supplied by the Company ("the Products") displayed on this Technical Data Sheet ("TDS"). Please read this disclaimer carefully before using any of the Products. Using this TDS and/or the Product constitutes your acceptance of this disclaimer. Its contents shall prevail over any directions of use and any disclaimer and/or exclusion or limitation of liability of the Company which may appear on the packaging of the Products.

This disclaimer sets out the entire financial liability of the Company (including any liability for the acts or omissions of its employees, agents and sub-contractors) to any user of the Products ("Product User") in respect of any use made or resale by the Product User, of any of the Products in this TDS.

This disclaimer does not affect the Company's liability for death or personal injury arising from the Company's negligence in respect of the Products, nor its liability for fraud, or fraudulent misrepresentation, nor any other liability which cannot be excluded or limited under applicable law.

The Company's total liability however arising and whether caused by tort (including negligence and breach of statutory duty), breach of contract or otherwise, arising in connection with the use made or resale by the Product User of any of the Products in this TDS shall be limited to the price paid for the Product by the Product User.

The Company shall not be liable to the Product User for any pure economic loss, loss of profit, loss of business, depletion of goodwill or otherwise, in each case whether direct, indirect or consequential, or any claims (including in respect of personal injury insofar as not caused by the Company's negligence) for consequential compensation whatsoever (howsoever caused) which arise out of or in connection with the use made or resale by the Product User of any of the Products in this TDS.

The Company shall not be liable to the Product User in relation to any loss for any use which is inappropriate or use which is otherwise than in accordance with the relevant instructions for use of the Products in this TDS or on the Product. Product Users are advised to confirm the suitability of the Products by their own tests.

This TDS covers just one of a large range of products supplied by the Company.

Full information on these products and advice on application is freely available from our fully trained staff throughout the country. In addition, specialist technical advice is available from our Technical Services Department. This TDS supersedes all previous TDSs relating to the Products, and users of it must ensure that it is the current issue. Destroy all previous TDS, and if in any doubt, contact the Company, quoting the code number in the top right hand corner on the front of this document.

Sales	Tel: 01 8624999	Fax: 01 8402186	<a href="mailto:orders.bostik-irl@bostik.com">orders.bostik-irl@bostik.com</a>
Technical Advice	Tel: 01 8624998	Fax: 01 8402186	
Technical Data & COSHH (MSDS) Data Sheets	Tel: 01 8624900	Fax: 01 8402186	



FM 01696  
BS EN ISO 9001:2008