

# Super Flexible Adhesive EN 12004

# High grab, high strength versatile flexible wall and floor tile adhesive

# **Properties:**

- Cement-based grey or white adhesive.
  Conforms to EN 12004 as C2TES1.
- Conformity of Super Flexible Adhesive is declared in ITT Certificate no. 25080246/Gi.
- Long pot life up to 8 hours use after mixing.
- Resistant to frost, weathering and ageing.
- · High initial grab.
- Extended open time.
- Flexible.
- Non-slip formula.
- Adhesive bed depth up to 15 mm.
- Up to 30 minutes open time.
- Up to 45 minutes tile adjustment time.

# Where to use:

- Interior and exterior wall and floor areas.
- · Swimming pools, pool surrounds and shower blocks.
- Kitchens, bathrooms, showers, conservatories, balconies,
- terraces.
- · Commercial premises, offices, public buildings. • For the installation of porous bodied wall tiles and mosaics, vitrified floor tiles and mosaics, porcelain tiles and mosaics,
- natural stone tiles not sensitive to discolouration or moisture, quarry tiles and brick slips. • Gypsum plaster and plasterboard.
- Cement-based and other proprietary tile backer boards.
- Cement:sand render.
- Well adhered paint to walls.
- Plywood walls and plywood overlaid floors.
- Concrete.
- · Cement:sand screeds.
- · Calcium sulphate based screeds.
- Underfloor heating hot water and electrical systems.

#### Not suitable for:

- The installation of synthetic stone or natural stone that is prone to staining.
- · Floor boards or chipboard.

#### Substrate preparation:

Concrete substrates must be at least 6 weeks old and cement:sand screeds at least 3 weeks old prior to commencing tiling. Calcium sulphate screeds must be abraded to remove the surface laitance prior to priming with **Mapei Plaster Primer**. They must additionally be dry to 0.5% w/w moisture when measured using a carbide hygrometer.

Ensure that floor substrates are suitably flat and level (unless a slope is required) and that walls are flush and plumb. In addition the substrate must be firm, sound, free from cracks, suitably strong to take the weight of the tiling and dry. It should also be free from any contamination likely to impair adhesion such as

loose or friable areas, dust, paint, grease, wax, mould, plaster droppinas etc.

Plywood walls must be of marine grade or WBP quality, at least 15 mm thick and screw fixed, using countersunk rust resistant screws, to a seasoned framework (or proprietary system) at maximum 200 mm centres in all directions. Insert additional battens as necessary.

Plywood floors must be those where a minimum of 15 mm marine grade or WBP quality plywood has been screw-fixed to an existing floor substrate, using countersunk rust-resistant screws, at maximum 300 mm centres in all directions. Insert additional noggings where necessary. As an alternative to plywood when overlaying a timber base, a minimum of 10 mm of a suitable moisture stable board e.g. cement-based tilebacker board, can be used. Where plywood is fixed directly to joists it must be a minimum of 18 mm and also screw fixed at 300 mm centres - use Mapei Stone & Porcelain Rapid Set mixed with Mapei Flexible Additive for this application.

Plaster substrates should be allowed to dry out for a minimum of 4 weeks prior to priming with **Mapei Plaster Primer** (1 week for plaster skim coats over plasterboard) and cement:sand renders for a minimum period of 2 weeks. Shiny plaster walls may require a light sanding followed by a primer coat of Mapei Plaster Primer once all dust has been removed. Plasterboard and other construction boards must be well secured and rigid. Painted surfaces must be firmly bonded to the wall substrate ensuring that all loose and flaking areas are thoroughly removed. Note when tiling to painted substrates the success of the installation relies on the strength of the paint bond to the wall. In cases of doubt remove the paint finish or carry out a small trial area. Very porous surfaces may be primed with Mapei Plaster Primer to reduce the suction and thus prevent rapid skinning of the adhesive.

In shower areas protect the substrate with a suitable waterproof coating prior to fixing the tiles. Do not use bitumen based waterproof coatings / membranes.

When installing electric undertile heating cables, it is recommended that the cables are covered with a suitable levelling compound to provide a void-free and flat even base. It is possible to cover the cables with adhesive but proceed with caution to avoid damaging the cables.

Hot water piped underfloor heating systems must be commissioned prior to the installation of tiles. Cement:sand screeds should be allowed to cure for a minimum of 3 weeks after which the heating should be switched on and the temperature raised until the operating temperature is reached. This temperature should be maintained for at least 3 days before allowing to cool to room temperature. In cold conditions maintain a surface temperature of +15°C when tiling. Allow a further 28 days after completion of tiling before switching the heating on at a rate of +5°C per day.

When fixing to balconies use a suitable waterproof membrane

prior to tiling. Not suitable for fixing to roofing felt, roofing grade asphalt or bituminous systems.

# Note:

The maximum weight of tiling onto plaster should not exceed 20 kg/m² or 32 kg/m² for plasterboard (not skimmed).

# **Product preparation:**

Place between 5.4-5.8 litres for white and 5.0-5.4 litres for grey of clean water into a clean mixing bucket. Slowly add the adhesive powder from a 20 kg bag whilst continuously stirring with a mechanical mixer set to a slow speed. Mix for approx. 2-3 minutes until the mix is free from lumps.

Where smaller quantities are to be mixed, use between 0.27 and 0.29 litres per 1 kg of powder (approx. 1 part water to 3.5 parts powder).

### **Product application:**

Spread the adhesive onto the correctly prepared substrate using a suitable notched trowel ensuring that a minimum of 65% coverage is achieved in dry interior wall areas with 100% in wet areas, on floors and all exterior areas.

**Mapei Super Flexible Adhesive** has excellent resistance to tile slip so usually battens are not required when fixing. Remove tiles occasionally to check the contact area. To ensure that the substrate is sufficiently wetted out by the adhesive and to close-off open textured screeds etc. it is recommended that a thin skim coat of the adhesive is spread over the background using the flat side of the trowel prior to combing more adhesive onto the area. Press the tiles in position, before the adhesive has formed a skin, using a twisting action to ensure good adhesive contact. Leave clean open joints between the tiles. Do not spread more adhesive than can be tiled within 30 minutes and do not apply when the temperature is less than +5°C or above +30°C. Use the white version when installing lighter coloured stone. Always check compatibility between stone and adhesive in a small trial area before proceeding.

#### **Grouting:**

The tiles can be grouted once the adhesive bed has dried. This is generally after 24 hours but this time period will be extended in cold conditions or where the substrate is less porous. Use an appropriate grout such as **Mapei Flexible Wall & Floor Grout** or **Mapei Anti-mould Flexible coloured Grout**.

# Movement joints / general sealant:

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Movement joints should be incorporated in accordance with the relevant section of BS 5385 to allow for expansion/contraction in the substrate. Use an appropriate sealant or pre-formed section.

#### **Consumption:**

Dependent on the size of the tile and the type of installation - between 2 and 5 kg/m<sup>2</sup>. When using a typical 300x300 mm tile on a flat even base, a 20 kg bag may cover in to 5 m<sup>2</sup>.

#### **Cleaning:**

Remove excess adhesive from the tile face as work proceeds using a damp cloth or sponge. Once the adhesive has hardened it can only be removed mechanically or with acid based cleaners. Clean tools and hands with clean water and soap as necessary.

#### **Packaging:**

Mapei Super Flexible Adhesive is available in 20 kg bags (grey or white).



#### Storage / shelf life:

The product should remain useable for up to 12 months in the original unopened packaging from the date of manufacture when stored dry in frost-free conditions above  $+5^{\circ}$ C and below  $+30^{\circ}$ C. Store away from direct sunlight, strong draughts and keep off the ground. Use opened packaging promptly. The product complies with the conditions of Annex XVII to Regulation (EC) N° 1907/2006 (REACH), item 47.

#### **Health & Safety information:**

Super Flexible Adhesive contains cement that when in contact with sweat or other body fluids causes irritant alkaline reactions 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. If the product comes in contact with the eyes or skin, wash immediately with plenty of water and seek medical attention. For further and complete information about the safe use of our product please refer to the latest version of our Material Safety Data Sheet.

PRODUCT FOR PROFESSIONAL USE.

#### **Disclaimer:**

While the indications and guidelines contained in this data sheet correspond to the company's knowledge and wide experience, they must be considered, under all circumstances, merely as an indication and subject to confirmation only after long term, practical applications. Therefore, anybody who undertakes to use this product must ensure beforehand that it is suitable for the intended application and, in all cases the user is to be held responsible for any consequences deriving from its use.

#### **Technical Hotline:**

For all technical enquiries regarding the use of this product or any other product from the **Mapei Range** contact **tel. 0121 508 6970** or e-mail: **technical@mapei.co.uk**.





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