



Mapei Rapid Set

Fast setting cement based adhesive



Fast setting cement based adhesive for internal and external ceramic floor tile installations

CLASSIFICATION IN COMPLIANCE WITH EN 12004

Mapei Rapid Set is a normal (1) fast-setting (F) cementitious (C) adhesive classified as C1F.

WHERE TO USE

Interior and exterior bonding of ceramic tiles of every type, and natural stone materials that are not sensitive to moisture.

Spot bonding of insulating materials such as expanded polystyrene and polyurethane, gypsum board, glass and rock wool, cement particle boards, formed concrete blocks, sound-deadening panels etc.

Some application examples

- Rapid laying or repairs in places with foot traffic.
- Rapid repair work in bathrooms, showers, kitchens and terraces.
- Setting marble and other natural stones not sensitive to moisture.

TECHNICAL CHARACTERISTICS

Mapei Rapid Set is a grey powder composed of a mixture of special cements, selectively-graded aggregates, synthetic resins and setting accelerators that develop high bonding strength only 3 hours after setting.

For this reason, floor installations can be completed very quickly. Floors are ready for traffic in 24 hours, and can be walked on after only 2-3 hours.

Mapei Rapid Set, when hardened, is frost-proof and water resistant.

RECOMMENDATIONS

- Floors subject to flexing or vibration (wood, asbestos, cement, cement boards etc..) use flexible adhesive, ie. **Keraquick** mixed with **Latex plus**.
- On anhydrite screeds apply **Mapeprim SP** or **Eco Prim T** primers.
- On gypsum walls or gypsum based mortars apply a coat of **Primer G** beforehand.
- On metal surfaces use **Keralastic**.
- For bonding insulating panels of expanded polystyrene with protective film use **Ultramastic III Super White**.
- For exterior installations of medium to large format tiles, porcelain tiles and for installing over concrete use **Mapeker Rapid Set**.

APPLICATION PROCEDURE

Preparing the Substrate

Mapei Rapid Set can be applied to all stable substrates that are free of oils, grease and wax, and that are solid and free from loose plaster, laitance and crazing. Damp cement screeds can noticeably prolong the setting time of Mapei Rapid Set.

Gypsum plasters must be 4 weeks cured and perfectly dry, sufficiently hard and free from dust. It is absolutely essential that they are treated with **Primer G** before laying with Mapei Rapid Set. In areas subject to extreme damp (showers etc..) **Mapegum WPS** Tanking System should be used to waterproof the substrate; **Eco Prim T** should be used when laying flooring on anhydrite screeds.

Preparing the mix

Mapei Rapid Set should be mixed with clean water and stirred continuously until it becomes a smooth paste, free of lumps. It is preferable to use a mechanical stirrer. The mix must be used within 15-20 minutes, after which it begins to set. A 20 kg bag of grey **Mapei Rapid Set** should be mixed with 5.5 litres of water. Allow the mix to stand for a few minutes, then mix again briefly before applying.

Applying the mix

Mapei Rapid Set is applied to the substrate with a notched trowel to a maximum of 5 mm thick. When selecting the trowel, choose one that transfers the adhesive to at least 65-70% of the back of the tiles for interior walls and 100% coverage for floors and exteriors:

- for mosaics up to 5x5 cm, the MAPEI square-notched trowel No. 4 is recommended;
- for floors, very irregular surfaces and tiles with high ribs or lugs, the MAPEI V-notched trowel No. 6 or No. 10 trowel is recommended;
- for very absorbent substrates, or during hot weather, the substrate should be dampened to extend the open time of the adhesive

Setting the tiles

Do not wet the tiles before setting; if, however, the backs are very dusty, they should be wiped over with a damp sponge.

Mapei Rapid Set's open time in normal temperature and humidity is approximately 10 minutes; unfavourable weather conditions (strong sun, drying wind, high temperatures), or a highly absorbent substrate may shorten this open time, sometimes quite drastically, to just a few minutes. For this reason, there must be constant checks to see whether the adhesive has formed a surface skin, or is still fresh to the touch.

Should a surface skin have formed, the adhesive should be re-trowelled. Do not add water when adhesive has started to set, instead of dissolving the skin, a non-adhesion film will be formed. Adjustment of the tiles, if necessary should be carried out within 5-10 minutes of laying.

Tiling laid with **Mapei Rapid Set** must not be subjected to light rain for at least 3 hours, and must be protected from frost and strong sun for at least 24 hours.

GROUTING

Tile joints can be grouted 2-3 hours after application, with MAPEI products (**Ultracolor Plus**, **Keracolor**).

If the joints need to have a good chemical resistance, use **Kerapoxy** 2-component acid-resistant epoxy grouting compound. Expansion joints to be filled with **Mapesil AC** or **Mapesil LM** or **Mapeflex PU20**.

Spot-bonding insulating materials

Spot bonding to sound-deadening or insulating panels should be applied using a float or trowel, the trowel type and size to be determined by the flatness of the surface and the weight of the panels.

In these cases too, the open time must be

observed, bearing in mind that a few spots of adhesive on heavy panels may require temporary shoring, which should then only be removed after the **Mapei Rapid Set** has begun to set.

Cleaning

Tools and hands should be cleaned with plenty of clean water, while tiled surfaces should be cleaned with a damp cloth; water should be used only in moderate quantities, and after a few hours.

CONSUMPTION

Ceramic Tiling and small size tiles (trowel No. 4): 2 kg/m²

Large sizes, floors, exteriors (trowel No. 6 or No. 10 +): 4 kg/m²

Spot-bonding foamed materials etc.: 0.5-0.8 kg/m²

Gypsum wallboard, foamed concrete: 1.5 kg/m²

Full-bonding on rough surfaces: 2.5 kg/m²

PACKAGING

Grey **Mapei Rapid Set** is supplied in 20 kg paper bags.

STORAGE

Mapei Rapid Set should be stored in a dry place, where it will have a maximum shelf life of 12 months.

Manufactured in compliance with the regulations of the 2003/53/EC Directive.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Mapei Rapid Set contains cement that when in contact with sweat or other bodily fluids produces an irritant alkaline reaction and a sensitising reaction in those predisposed; may cause serious damage to the eyes. Use protective gloves and goggles. In case of contact with skin, wash with plenty of water, in case of contact with eyes, consult a doctor. For further information, refer to the Safety Data Sheet.

PRODUCT FOR PROFESSIONAL USE.

WARNING

Although the technical details and recommendations contained in this product report correspond to the best of our knowledge and experience, all the above information must, in every case, be taken as merely indicative and subject to confirmation after long-term practical applications; for this reason, anyone who intends to use the product must ensure beforehand that it is suitable for the envisaged application. In every case, the user alone is fully responsible for any consequences derived from the use of the product.

**All relevant references
for the product are available
upon request and from
www.mapei.com**

TECHNICAL DATA (typical values)

In compliance with:

– European EN 12004 as C1F

PRODUCT IDENTITY

Type:	powder
Colour:	dark grey
Bulk density (kg/m³):	1,300
Dry solid content (%):	100
Storage:	12 months in a cool dry place in the original packaging
Hazard classification according to EC 1999/45:	irritant. Before using refer to the “Safety instructions for preparation and application” paragraph and the information on the packing and Safety Data Sheet
Customs class:	3824 50 90

APPLICATION DATA at +23°C - 50% R.H.

Mixing ratio:	100 parts of powder with 18-20 parts water
Consistency of mix:	creamy paste
Density of mix (kg/m³):	1.600
pH of mix:	12
Pot life:	20 minutes
Application temperature range:	from +5°C to +30°C
Open time (according to EN 1346):	10-15 minutes
Grouting joints:	2-3 hours
Set to light foot traffic:	2-3 hours
Ready for use:	24 hours

FINAL PERFORMANCE

Tensile adhesion strength according to EN 1348 (N/mm²):	
– initial (after 28 days):	1.3
– after heat ageing:	0.8
– after water immersion:	1.1
– after freeze-thaw cycling:	1.2
Resistance to acids:	poor
Resistance to alkalis:	excellent
Resistance to oils:	excellent
Resistance to solvents:	excellent
Temperature when in use:	from –30°C to +90°C

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