Granirapid is an improved (2) fast setting (F)
cementitious (C) deformable (S1) adhesive classified
as C2FS1.

Granirapid is available in grey or white.

Conformity of Granirapid Grey is declared in ITT
Certificate no. 85330201.101 and no. 25070279/Gi
issued by the Saurefliesner-Vereinigung e.V.
Grossburgwedel laboratory. Conformity of Granirapid
White is declared in ITT Certificate
no. 250800600/Gi issued by TUM Munchen.

WHERE TO USE
For the installation of a wide range of tile and mosaic
types including ceramic, encaustic, porcelain, natural
and agglomerate stone, terrazzo, terracotta. Suitable for
interior and exterior use on both walls and floors.
For bonding heavy duty rubber flooring requiring
installation with a cementitious adhesive e.g. those with
a profiled back – stalk back or dove-tailed back.
For use on the majority of conventional substrates used
in construction such as concrete, screed (cement-based
and anhydrite), plywood (min. 15 mm), cementitious
render, plaster, plasterboard. Suitable for use with
MAPEI waterproof membranes such as Mapelastic / Mapelastic Smart.

Some application examples
• Ideal for the installation of natural stone materials
  where a rapid setting system is required. Suitable for
granite, basalt, marble, limestone, travertine, slate and
sandstone.
• The special composition of Granirapid makes it
especially suitable for the installation of agglomerate
or synthetic stone where a rapid drying low water
system would be of benefit.
• The high strength and durability of Granirapid
makes it ideally suited to the installation of tiles in
heavy duty areas such as shopping centres,
supermarkets, airports, railway stations, public
buildings, car showrooms and workshops,
commercial kitchens, factories, hospitals, schools
and universities.
• Ultra rapid strength build-up; perfect for areas which
  need to be put into service shortly after tiling. Also for
areas requiring a quick, efficient repair.
• Heavy duty wet performance for commercial showers,
leisure centres, swimming pools, exterior walkways,
terraces and balconies.
• The excellent wetting properties of Granirapid make
  the adhesive capable of installing larger format tiles
  e.g. 600 x 600 mm.

ON
• Bonded, unbonded, floating and heated screeds
  provided that they are sufficiently cured. Includes
screeds produced with Topcem, Topcem Pronto,
Mapecem, Mapecem Pronto.
• Underfloor and undertile heating systems.
• Existing tiled flooring (ceramic, natural stone,
terrazzo etc.) after suitable preparation, cleaning
and degreasing.
• Plywood overlaid floors, provided that the plywood
  is WBP or marine and at least 15 mm thick and screw
fixed at maximum 300 mm centres.
TECHNICAL CHARACTERISTICS
Granirapid is a two-component adhesive composed of a special hydraulic binder and silica sand (part A) and a synthetic rubber latex (part B).
Granirapid has particularly fast setting and hydration times so that floors are set to light foot traffic after 3 hours and completely cured after only 24 hours.
Granirapid has very low shrinkage and excellent bonding characteristics making it suitable for most difficult substrates. Its mechanical properties make it resistant to impact, vibration, temperature changes, ageing and dilute chemical reagents.

RECOMMENDATIONS
Do not use Granirapid:
• on walls or floors subject to intense movement (chipboard or floorboards, etc.);
• on metal surfaces;
• on artificial, agglomerate or natural stone subject to exceptional moisture movement, e.g. green marble, certain sandstones and slates. Use Keralastic only.

APPLICATION PROCEDURE
Preparing the substrate
All substrates onto which Granirapid will be applied must be flat, mechanically strong, free from loose parts, grease, oil, paint, wax, etc. Cementitious substrates must not continue to shrink after the installation of the tiles. Renders must be cured at least 2 weeks and cementitious screeds must be cured for at least 3 weeks, unless they have been produced with special MAPEI binders for screeds such as Mapcem or Topcem or a ready mixed mortar such as Mapcem Pronto or Topcem Pronto.
Heated screeds must be commissioned in accordance with recognised technical regulations and the guidelines given in BS 5385 parts 4 and 5.
Dampen surfaces with water to cool down, if they should be too warm from exposure to direct sunlight. Ensure that existing tiled finishes are well bonded. Replace any loose or hollow sounding tiles with a suitable mortar such as e.g. Nivorapid. Thoroughly degrease the surface ensuring that all waxes and polishes are thoroughly removed. Mechanical abrasion may be necessary and we would generally recommend this procedure when tiling to natural stone and terrazzo flooring. Gypsum plaster must be completely dry and a least 4 weeks old prior to commencing tiling. Prime the surface with Primer G. Anhydrite screeds must be dry (0.5% w/w), free from surface laitance and mechanically abraded as necessary (check with manufacturer). Prime with Primer G (diluted 1:1 with water) or Eco Prim T (diluted 1:2 with water). In wet areas apply a waterproof membrane such as Mapegum WPS, Mapelastic Smart or Mapelastic AquaDefense. Ensure that plywood overlay is screw fixed to a rigid base at a maximum of 300 mm centres in all directions, that the board is of marine or WBP grade and that it has been acclimatised to the ambient conditions prior to the commencement of tiling.

Preparing the mix
The Granirapid mix is obtained by mixing 20 kg of part A grey or 18 kg part A white (cementitious powder) with 4.4 kg of part B (synthetic rubber latex). If possible, use a mechanical stirsrer until a smooth mix is obtained. Always pour the powder (part A) into the latex (part B). Pot life at +20°C is about 45 minutes, but higher temperatures may reduce this time.

Applying the mix
To achieve good adhesion, first spread a thin coat of Granirapid onto the substrate using the straight edge of the trowel followed immediately by the correct thickness, using an appropriate notched trowel. The general principle to follow when selecting the right trowel is to choose one that gives a coverage to at least 65-70% of the back of the tiles for internal walls in dry areas and 100% (as far as possible) coverage for floor areas, wet areas and all external work. For particularly demanding applications such as: exteriors subject to freezing, swimming pools, floors subject to heavy loads or to be polished in situ, tiles with deep backs or large size tiles, Granirapid should additionally be applied to the back of the tiles (back-buttering).
Large size tiles include those over 900 cm² (30x30 cm).

Installing the tiles
Open time in normal temperature and humidity conditions is about 20 minutes. Unfavourable climatic conditions (strong sun, drying wind, high temperature, etc.) or a highly absorbent substrate can reduce this time to just a few minutes.
Careful checks have to be made to ensure that a skin does not form on the surface of the spread adhesive, which should stay “fresh”. Wetting or priming the substrate before applying the adhesive helps to prolong open time. Should a skin form, the adhesive will have to be removed and fresh material applied. It is not advisable to wet the adhesive with water when a skin has formed because the water will often form a separating layer. Tiled laid with Granirapid must not be washed or exposed to rain for at least 3-4 hours and must be protected from strong sunlight for at least 12 hours after laying.

Installing rubber tiles
The installation of rubber with cementitious adhesive must be carried out by back-buttering. Butter the back of the slab with Granirapid, and spread Granirapid on the substrate with a No. 6 trowel. Apply the slab “wet” on “wet” and lightly twist.

GROUTING AND SEALING
Joints can be grouted after 3 hours with special MAPEI cementitious or epoxy grouts, available in various colours. Expansion joints must be sealed with special MAPEI sealants.

POLISHING
Surfaces can be polished after minimum 24 hours.
### TECHNICAL DATA (typical values)

In compliance with: – European EN 12004 as C2FS1

#### PRODUCT IDENTITY

**EMICODE:**
EC1 R Plus - very low emission

#### PART A

**Consistency:**
white or grey powder

**Bulk density (g/cm³):**
1.3

**Dry solids content (%):**
100

#### PART B

**Consistency:**
thick liquid

**Colour:**
greenish white

**Density (g/cm³):**
1.01

**pH:**
10

**Dry solids content (%):**
21

**Brookfield viscosity (mPa·s):**
40

#### APPLICATION DATA at +23°C – 50% R.H.

**Mix ratio:**
white: part A: 18 kg + part B: 4.4 kg
grey: part A: 20 kg + part B: 4.4 kg

**Consistency of mix:**
creamy paste

**Density of mix (kg/m³):**
1600

**pH of mix:**
approx. 11

**Application temperature range:**
from +5°C to +30°C

**Pot life of mix:**
45 mins.

**Open time (according to EN 1346):**
approx 20 mins.

**Setting time:**
approx. 2 hours

**Grouting:**
after 3 hours

**Set to light traffic:**
after 3-4 hours

**Ready for use:**
after 24 hours (3 days for basins and swimming pools)

#### FINAL PERFORMANCES

**Tensile adhesion strength according to EN1348 (N/mm²):**
- initial (after 28 days):
  - 2.5
  - 2.2
  - 2.2
  - 1.3
  - 1.4

**Flexural strength (N/mm²):**
- after 24 hours:
  - 3.0
  - 5.0
  - 6.0

**Compressive strength (N/mm²):**
- after 24 hours:
  - 10.0
  - 17.0
  - 20.0

**Resistance to acids:**
fair

**Resistance to a alkalis:**
excellent

**Resistance to oils:**
excellent

**Resistance to solvents:**
excellent

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

**Deformability according to EN 12004:**
S1 - deformable
LIGHT FOOT TRAFFIC
Floors are able to take light foot traffic after 3-4 hours.

READY FOR USE
Surfaces are ready for use after approximately 24 hours. Swimming pools and water features can be filled after 3 days.

Cleaning
All tools may be cleaned with water before the adhesive sets. After setting, cleaning becomes very difficult, but can usually be aided by solvents such as white spirit or similar.

CONSUMPTION
Mosaics and small tiles in general (trowel No. 4): 2.5-3 kg/m²
Normal tiles (up to 200x200 mm) (trowel No. 5 / No. 6): 3.5-4 kg/m²
Large tiles, exterior floors (trowel No. 10 or larger): 5-6 kg/m²
Uneven tile backs and uneven surfaces, natural stones (trowel No. 10 / or half moon notched): 8 kg/m² or more

PACKAGING
Granirapid is available in white or grey.
Granirapid white: 22.4 kg packs:
part A: 18 kg bag; part B: 4.4 kg drum.
Granirapid grey: 24.4 kg packs
part A: 20 kg bag; part B: 4.4 kg drum.

STORAGE
Granirapid Part B can be stored 24 months. Protect from frost and strong sunlight. The product complies with the conditions of Annex XVII to Regulation (EC) No 1907/2006 (REACH), item 47.

SAFETY INSTRUCTIONS FOR THE PREPARATION AND INSTALLATION
Granirapid component A 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. Granirapid component B is not considered as dangerous according to the current regulation regarding the classification of mixtures. 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.

WARNING
Although the technical details and recommendations contained in this product data sheet 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 application; 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 deriving from the use of the product.

Please refer to the current version of the Technical Data Sheet, available from our website www.mapei.com

This symbol is used to identify Mapei products which give off a low level of volatile organic compounds (VOC) as certified by GEV (Gemeinschaft Emissionskontrollierte Verlegewerkstoffe, Klebstoffe und Bauprodukte e.V.), an international organisation for controlling the level of emissions from products used for floors.

Our Commitment To The Environment
MAPEI products assist Project Designers and Contractors create Innovative LEED (The Leadership in Energy and Environmental Design) certified projects, in compliance with the U.S. Green Building Council.

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

Any reproduction of texts, photos and illustrations published here is prohibited and subject to prosecution.