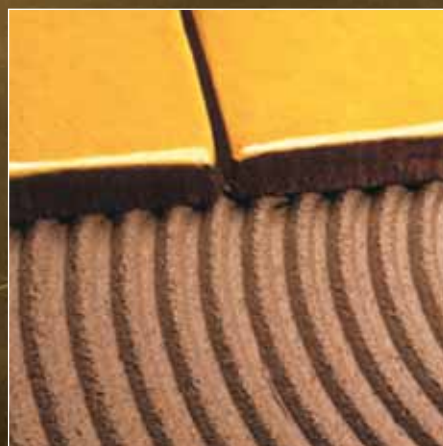


PRODUCTS FOR CERAMIC TILES AND STONE MATERIALS



MAPEI

ADHESIVES • SEALANTS • CHEMICAL PRODUCTS FOR BUILDING

www.mapei.com

Ceramic tiles and stone material line

Ceramic, porcelain and agglomerate tiles are materials widely used for floors and wall coverings in a multitude of different places and contexts: airports, universities, shopping malls, swimming pools and our own homes, all with their own various colours, features and advanced performance claims. Consequently, products used in the installation of these materials must be in a state of constant evolution, as technical developments go hand in hand with increased simplicity of use and improved durability.

Thanks to its considerable efforts in a range of research fields, Mapei can now boast a complete range of products adapted to all installation systems, on any scale. The range includes cementitious adhesives, paste adhesives, hydraulic binders for screeds, primers, levelling compounds, grouts, sealants and ancillary products suitable for applications until recently considered technically impossible but that now open up a number of exciting new possibilities:

- Repair work without costly demolition.
- Increased speed and efficiency in the execution of work. As a result, work is completed more rapidly.
- Progressive elimination of dangerous products from construction sites.
- Grouts and joints that are not only functional, but may also serve as decorative features.



All MAPEI adhesives for ceramics and stone material conform to Standard EN 12004



All MAPEI grouting mortars for ceramic and stone material conform to Standard EN 13888

Note: the International Standards ISO 13007-1 and ISO 13007-3 were issued recently, and they also take into account the requirements for the European Standards EN 12004 and EN 13888

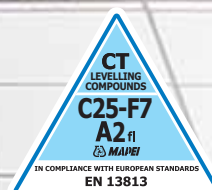
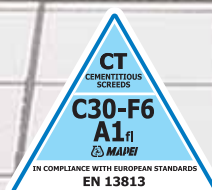
All MAPEI adhesives have been awarded the CE mark in compliance with Annex ZA, Standard EN 12004



Most MAPEI adhesives and grouts have been certified EMICODE EC1 awarded by GEV



MAPEI pre-blended mortars for screeds and levelling compounds conform to Standard EN 13813



MAPEI mortars for screeds and levelling compounds have been awarded the CE mark in compliance with Annex ZA, Standard EN 13813



MAPEI additives for screeds have been awarded the CE mark in compliance with Annex ZA, Standard EN 934-2



MAPEI products and systems for the protection of concrete surfaces have been awarded the CE mark in compliance with Annex ZA, Standard EN 1504-2



MAPEI has always been committed to research and development into products which safeguard the environment, the health of those who use them and of those who use the areas where they are applied, and since 1980, they have developed a series of products which emit an extremely low level of volatile organic compounds. These products have been used for decades on sites all over the world for laying resilient and textile floors, and have been certified "EMICODE EC1" - extremely low emission level of volatile organic compounds" – awarded by GEV (Gemeinschaft Emissionskontrollierte Verlegewerkstoffe Klebstoffe und Bauprodukte e.V.), a German association which controls the emission levels of products used for laying floors, adhesives and other materials used in the building industry.

MAPEI's strong commitment to the environment and ECO-SUSTAINABLE buildings has also led the company to provide products with an extremely low level of VOC for installing ceramic tiles and natural stone which are also GEV certified, and which carry the EMICODE EC1 seal of approval, which may be found in the catalogue as follows:



Maximum emission levels of EMICODE EC1 products:

Residual emission after 10 days: • organic adhesives: < 0.5 mg/m³ • primer: < 0.1 mg/m³ • powder products: screeds/smoothing and levelling compounds, cementitious adhesives: < 0.2 mg/m³.

With the aim of guaranteeing a high standard of quality in the areas where they are applied, **BioBlock®** technology has been developed, which impedes the formation of mould on products applied in damp environments. Products which feature this technology are easily recognised by the **BioBlock®** logo



Low Dust technology has also been developed to safeguard the health of those who handle and apply such products, the amount of dust produced during the mixing phase with water is drastically reduced. Products which feature this technology are easily recognised by the **Low Dust** logo



The **Green Innovation** symbol identifies products with certain characteristics which contribute to achieving eco-sustainable buildings:

- products with an extremely low emission level of volatile organic compounds,
- products with an extremely low emission level of dust during the mixing and storage phases,
- products which avoid the formation of mould when applied in damp environments,
- products which help to improve environmental wellbeing, for example by improving

sound-proofing against the noise created by foot-traffic,

- products based on the use of raw materials from recycled materials, to reduce impact on the environment deriving from the extraction of virgin materials,

- lightweight products.



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The CE mark and the European classification of ceramics and stone material according to Europe

Also thanks to the CE mark, Mapei makes easier transportation of their Adhesives for Ceramic tiles all over Europe

Since 2000, a classification is in force for adhesives and grouting mortars for tiles, according to a unique, harmonious model at a European level, and which is indicated in Standards **EN 12004** and **EN 13888**.

This system allows users of the products to carry out a simple classification according to their area of use and their characteristics.

In fact, classification of the products has become performance orientated, with supplementary characteristics regarding their application, highlighted by a symbol which guarantees that they are conform, on the packaging and on all the documentation.

MAPEI, consistent in its approach (based on innovation, transparency and clarity for which they are renowned), has adopted the new Standard immediately and since 2000, MAPEI has been identifying all its products with the symbols which certify that they conform.

CE mark - Adhesives for Ceramic tiles

According to the "European Directive 89/106 for products employed in construction", in order to favour free trade in the member states of the European Community, it is obligatory to apply the **CE** mark on all packaging of adhesives for ceramic tiles (cementitious, in dispersion and active resin-based). The **CE** mark on the packaging is a guarantee for the user that the manufacturer has respected the following directives:

- the adhesive possesses the characteristics established in Annex ZA, Standard **EN 12004**, and required by "Mandate M127 – Construction Adhesives";
- the adhesive has been awarded one or more test certificates by an independent laboratory designated by each single European State, and authorised by the European Community:
 - Technische Universität München (TUM)
 - Säurefließner-Vereinigung e.V. Grossburgwedel (SFV)
 - Centre Scientifique et Technique du Bâtiment, Champs sur Marne (CSTB)
- The product outline of each ceramic adhesive also contains the certificate reference number and the name of the body which issued it;
- the manufacturer has issued a signed Declaration of Compliance (EC Declaration), with which they assume all responsibility regarding declaration of the **CE** mark;
- with reference to Directive **EN 89/106**, the manufacturer is obliged to adhere to the following:
 - to apply a quality control system on the goods produced in the factory;
 - to carry out rigorous controls at the start of each new production batch and for variations in the raw materials and production processes;
 - to keep testing equipment under strict control;
 - to register and store results of testing carried out for a period of at least 5 years, and supply the results upon request;
 - to identify and separate the products (raw materials and finished goods) that, when subject to control, do not conform to standards;
 - to provide suitable training to all personnel employed in the production and quality control cycles;
 - to assume complete responsibility for the characteristics declared, to indicate the product's area of use and to supply instructions for its correct use.

To sum up, therefore, the **CE** mark represents a certified guarantee to the user that the product which has been purchased possesses the minimum characteristics required by current standards, and that the above mentioned characteristics are not subject to variation between the different production batches.



Tab. 1: CLASSIFICATION OF ADHESIVES FOR CERAMIC AND NATURAL STONE TILES IN COMPLIANCE WITH EN 12004 STANDARDS



EN 12004

CEMENTITIOUS ADHESIVES

MAPEI PRODUCTS	TYPE and CLASS	DESCRIPTION
TIXOBOND WHITE	C1TE	Normal slip-resistant cementitious adhesive with extended open time
KERABOND, KERAFLOR, KERASET	C1	Normal cementitious adhesive
KERABOND T	C1T	Normal slip-resistant cementitious adhesive
KERABOND T + ISOLASTIC, KERAFLOR + ISOLASTIC	C2 S2	Improved cementitious adhesive, highly deformable
KERABOND + ISOLASTIC	C2E S2	Improved cementitious adhesive, with extended open time, highly deformable
PLANOBOND, KERAFLOR EASY	C2E	Improved cementitious adhesive with extended open time
ADESILEX P4	C2F	Improved fast-setting cementitious adhesive
GRANIRAPID	C2F S1	Improved fast-setting cementitious adhesive, deformable
KERACRETE POWDER + KERACRETE	C2T	Improved slip-resistant cementitious adhesive
ADESILEX P9, ADESILEX P10, KERAFLOR	C2TE	Improved slip-resistant cementitious adhesive with extended open time
KERAFLOR MAXI S1, ADESILEX P10 + ISOLASTIC (diluted 1:1 with water), ULTRALITE S1	C2TE S1	Improved cementitious adhesive, slip-resistant with extended open time, deformable
ULTRAFLEX S2 MONO	C2TE S2	Improved cementitious adhesive with extended open time, highly deformable
KERAQUICK	C2FT S1	Slip-resistant improved fast-setting cementitious adhesive, deformable
ELASTORAPID	C2FTE S2	Improved cementitious adhesive, fast setting and slip-resistant, with extended open time, highly deformable
ULTRAFLEX S2 QUICK, KERAQUICK + LATEX PLUS	C2FT S2	Slip-resistant improved fast-setting cementitious adhesive, highly deformable

DISPERSION ADHESIVES

MAPEI PRODUCTS	TYPE and CLASS	DESCRIPTION
ADESILEX P22, ADESILEX P25, ULTRAMASTIC III, ULTRAMASTIC 5	D1TE	Slip-resistant normal dispersion adhesive with extended open time
FIX & GROUT BRICK, ULTRAMASTIC 2	D2T	Slip-resistant improved dispersion adhesive
ULTRAMASTIC III, ULTRAMASTIC 5	D2TE	Slip-resistant improved dispersion adhesive with extended open time

REACTION RESIN ADHESIVES

MAPEI PRODUCTS	TYPE and CLASS	DESCRIPTION
KERALASTIC, KERAPOXY DESIGN, KERAPOXY ADHESIVE	R2	Improved reaction resin adhesive
KERAPOXY, KERALASTIC T	R2T	Improved reaction resin adhesive, slip-resistant



EN 13888

Tab. 2: CLASSIFICATION OF GROUTS IN COMPLIANCE WITH EN 13888 STANDARD

MAPEI PRODUCTS	TYPE and CLASS	DESCRIPTION
MAXIFUGA, ULTRACOLOR PLUS, KERACOLOR PPN, KERACOLOR SF, KERACOLOR FF, KERACOLOR GG, KERACOLOR FF/KERACOLOR GG + FUGOLASTIC	CG2	Improved cementitious grout (high resistance to abrasion-Ar and reduced water absorption-W)
KERAPOXY, KERAPOXY P, KERAPOXY SP, KERAPOXY IEG, KERAPOXY DESIGN, KERAPOXY CQ	RG	Reaction resin grout

LEGEND

ADHESIVES

Type	Symbol	Class
cementitious	C	
dispersion	D	
reaction resin	R	
	1	normal
	2	improved
	F	fast-setting
	T	slip-resistant
	E	extended open time
cementitious	S1	deformable
	S2	highly deformable

GROUTS

Type	Symbol	Class
cementitious	CG	
	1	normal
	2	improved (high resistance to abrasion and reduced water absorption)
reaction resin	RG	



Soundproofing systems for flooring

New

New

New

Mapesilent Panel



Soundproofing system for floating screeds. Each Mapesilent Panel is composed of a bitumen and special polymer-based elasto-plastomeric membrane with a polyester reinforcement layer, sandwiched together with a resilient layer of polyester fibre.

Where to use:

Mapesilent Panel is used to form an efficient soundproofing system on all types of floor slab according to DPCM 5.12.97. Mapesilent Panel is applied between the structure and the floating screed prior to laying all types of flooring materials.

Technical data:

Tensile strength:

- longitudinal: 700 N/50 mm;
- transvers: 500 N/50 mm.

Resistance to impact: 900 mm.

Resistance to static perforation: 15 kg.

Impermeability to water: > 100 kPa.

Fire resistance: F.

Apparent dynamic rigidity (S't): 10 MN/m³.

Dynamic rigidity for calculation purposes (S'): 21 MN/m³.

Sound reduction caused by footstep (ΔL'_{nw}): 28 dB. (*)

Thermal resistance (R): 0.313 m²K/W.

Nominal thickness: 13 mm.

Format: 1000 x 1000 mm tiles.

Weight: 5 kg/m².

Packaging

pallets containing 75 m².

(*) calculated on a masonry-cement floor (300 kg/m²).

Mapesilent Roll



Soundproofing system for floating screeds consisting of a bitumen and special polymer-based elasto-plastomeric membrane with a polyester reinforcement layer, sandwiched together with a resilient layer of polyester fibre and a surface dressed with a layer of blue non-woven polypropylene fabric.

Technical data:

Tensile strength:

- longitudinal: 700 N/50 mm;
- transvers: 500 N/50 mm.

Impact resistance: 900 mm.

Resistance to static perforation: 15 kg.

Impermeability to water: > 100 kPa.

Fire resistance: F.

Dynamic rigidity for calculation purposes (S'): 47 MN/m³.

Sound reduction caused by footstep (ΔL'_{nw}): 22.8 dB. (*)

Thermal resistance (R): 0.145 m²K/W.

Nominal thickness: 8 mm.

Format: 1x10 m rolls.

Weight: 1.8 kg/m².

Packaging

1x10 m rolls.

(*) calculated on a masonry-cement floor (300 kg/m²).

Mapesilent Band



L-shaped adhesive, closed-cell, expanded polyethylene membrane applied to perimeter walls around the edges of interruptions which pass through screeds to prevent the formation of acoustic bridges.

Where to use:

Mapesilent Band is applied to all the walls around the perimeter of the screed, to form a soundproofing system with Mapesilent Roll or Mapesilent Panel, and around all the edges of interruptions which pass through the screed to avoid the formation of acoustic bridges.

This product is available in two widths, 100 and 160 mm, called Mapesilent Band 50/100 and Mapesilent Band 50/160 respectively. The 160 mm version is required for heated floors where insulating panels are used, which incorporate the heating elements of the system.

Technical data:

Thickness: 6 mm.

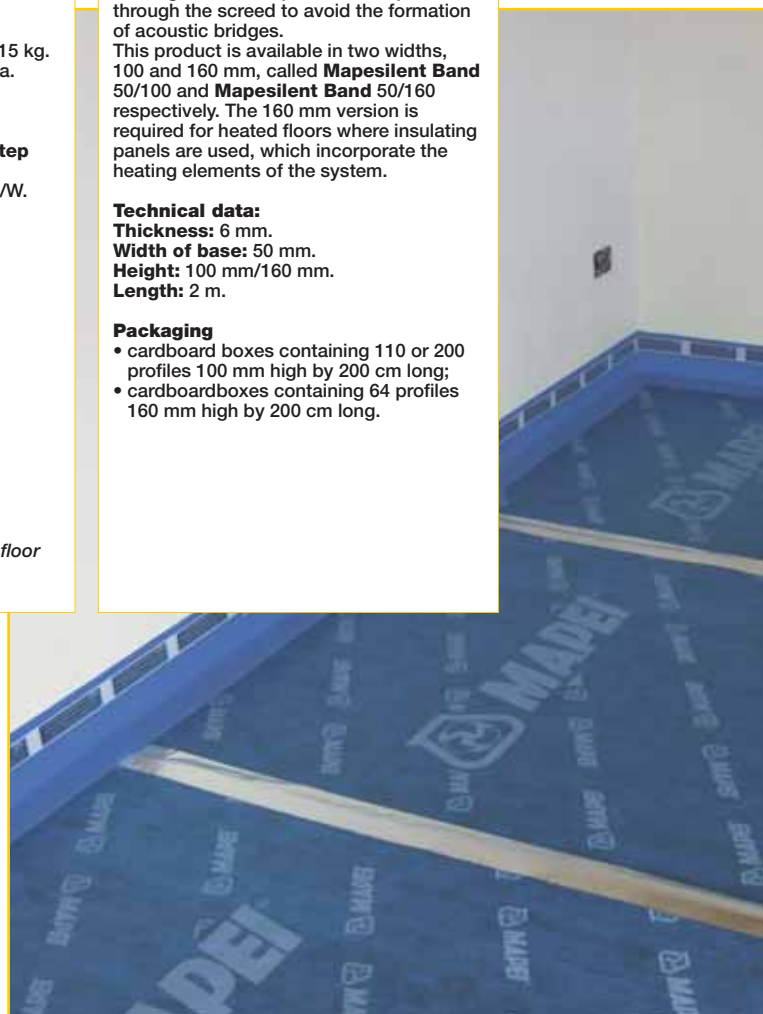
Width of base: 50 mm.

Height: 100 mm/160 mm.

Length: 2 m.

Packaging

- cardboard boxes containing 110 or 200 profiles 100 mm high by 200 cm long;
- cardboard boxes containing 64 profiles 160 mm high by 200 cm long.



New

Mapesilent Door



U-shaped adhesive, closed-cell, expanded polyethylene membrane applied in correspondence with openings in perimeter walls to avoid the formation of acoustic bridges.

Where to use:

Mapesilent Door is applied to all the openings in perimeter walls around the screed, to form a soundproofing system with **Mapesilent Roll** or **Mapesilent Panel**.

Technical data:

Thickness: 6 mm.
Width of base: 50 mm.
Pitch: 105-110 mm.
Height: 100 mm.
Length: 2 m.

Packaging

cardboard boxes containing 30 50x100 mm pieces.

New

Mapesilent Tape



Adhesive butyl rubber sealant tape with a silver-coloured surface.

Where to use:

Mapesilent Tape is used for sealing the overlapping of different pieces of **Mapesilent Band**, covering and joining the overlapping between **Mapesilent Band** and **Mapesilent Roll** and sealing the joints between **Mapesilent Panel** tiles and **Mapesilent Roll** sheets.

Technical data:

Thickness: 0.6 mm.
Width: 75 mm.
Length: 10 metres.

Packaging

10 m rolls.

Mapecofonic System



Minimal thickness sound control system designed to isolate impact noise when installed under ceramic tiles and stone materials.

Applications:

Acoustic insulation over:

- concrete and wooden substrates;
- existing ceramic tile, natural stone, parquet etc. floors.

Technical data:

Performance according to:

- ISO 140-6: 1978;
- ISO 140-8: 1977;
- ISO 717-2: 1977.
- Noise reduction $\Delta L_w = 17.6$ dB.
- Noise level index at standardised impact $L_{nw} = 59.4$ dB.

Certified by:

- Galileo Ferraris Institute Certificate n. 31697-01;
- C.S.T.B. Avis Technique n. 13/97-709.

Storage: 12 months.

Packaging

Mapecofonic System is made up of the following five products:

- **Mapecofonic Strip** - Self-adhesive tape to be placed around the sides of the floor and around columns to prevent sound transmission. 1 box containing 4 rolls of tape, each 11 m long.
- **Mapecofonic Pad** - Bitumen filled acoustic tiles (500x500x11.5 mm) with fibreglass reinforcing and a backing consisting of a composite cushion. When installed over the substrate, the **Mapecofonic Pads** form a sound deadening underlayment. 12 boxes containing 2 m² each.
- **Mapecofonic Glue** - Acrylic adhesive in water dispersion for installing **Mapecofonic Pad**. 4 buckets of 5 kg. N.B. Protect from frost.
- **Mapecofonic Mortar** - Grey fast-setting deformable cementitious adhesive for the installation of ceramic tiles and moisture stable stone material. 4 bags of 25 kg.



Mapecofonic Mortar is CE marked, as declared in ITT certificate n° 25070276/Gi (TUM), n° 25080059/Gi (TUM) and n° 25080063/Gi (TUM) issued by the Technische Universität München laboratory (Germany)

• Mapecofonic Grout - Fast

setting and drying, high performance, anti-efflorescence grout, polymer modified, for joints from 2 to 20 mm. Water-repellent with **DropEffect®** and antimold with **BioBlock®** technology. 12 boxes of 1 kg.



Screeds

TOPCEM PRONTO, MAPECEM PRONTO AND ALL THE PRODUCTS FOR LEVELLING SUBSTRATES ARE CE MARKED AND CLASSIFIED ACCORDING TO THE EUROPEAN CLASSIFICATION FOR PRE-BLENDED MORTARS FOR SCREEDS EN 13813

The new European Standard for pre-blended mortars for screeds (EN 13813), "Screed material and floor screeds - Screed material - Properties and requirements", has now become effective. This norm allows to classify the pre-blended mortars on the basis of the nature of the binders employed and on their physical and elasto-mechanical characteristics.

MAPEI, consistent in their approach (based on innovation, transparency and clarity for which they are renowned), has decided to adopt the new standard immediately and to identify their pre-blended mortars with a symbol on the packaging and on all relative technical documentation.

In particular, the standard symbols illustrated here below have been adopted for TOPCEM PRONTO and MAPECEM PRONTO pre-blended mortars and the levelling compounds of MAPEI range, to indicate the following:



- screeds made using **TOPCEM PRONTO**, in accordance with the indications contained in the Technical Data Sheet, are class CT (cementitious binder-based), C30 (compressive strength after 28 days equal to at least 30 N/mm²), F6 (flexural strength after 28 days equal to at least 6 N/mm²), A1n (reaction to fire class).



- screeds made using **MAPECEM PRONTO**, in accordance with the indications contained in the Technical Data Sheet, are class CT (cementitious binder-based), C60 (compressive strength after 28 days equal to at least 60 N/mm²), F10 (flexural strength after 28 days equal to at least 10 N/mm²), A1n (reaction to fire class).



- levelling compounds made using **ULTRAPLAN**, in accordance with the indications contained in the Technical Data Sheet, are class CT (cementitious binder-based), C30 (compressive strength after 28 days equal to at least 30 N/mm²), F7 (flexural strength after 28 days equal to at least 7 N/mm²), A2fl (reaction to fire class).

As with adhesives used for ceramic tiles, according to the European Directive 89/106 for products used in construction work, it is also obligatory to apply the CE mark on the packaging of pre-blended mortars for screeds in order to favour free trade within the member states of the European Community. The CE mark on the packaging is a guarantee for the user that the manufacturer has respected the following directives:

- the screed and the levelling compound, if made according to the indications contained in the Technical Data Sheet, possess the mechanical characteristics and belong to the reaction to fire class indicated by the CE mark;
- the manufacturer has issued a signed Declaration of Compliance (EC Declaration) certificate, with which they assume all responsibility regarding declaration of the CE mark;
- with reference to the "Directive 89/106", the manufacturer is obliged to carry out the same controls as indicated for the CE mark regarding adhesives for ceramic tiles.

Mapefluid N200



Superplasticiser for concrete.

Applications:

Mapefluid N200 can be used for manufacturing no-slump concrete for screeds, by reducing the w/c ratio, therefore the drying time.

Mapefluid N200 is a brown-coloured liquid admixture with a base of active polymers in water solution that disperse cement grains. Add **Mapefluid N200** directly to the mixture after all the other ingredients (cement, aggregates, water).

Mapefluid N200 can also be diluted into the mixing water beforehand but its superplasticising action is less effective.

Dosage

0.5 to 1.5 kg per 100 kg cement (0.4-1.3 l).

Packaging

200 l, 25 and 10 kg drums - 1000 l tanks. Also available in bulk on request.



Mapefluid PZ500



Superplasticiser with pozzolanic effect for high quality and chemical resistant mortar and concrete.

Applications:

Mapefluid PZ500 can be used for manufacturing no-slump concrete for screed by just reducing the w/c ratio therefore reducing the drying time.

Mapefluid PZ500 improves all properties of the concrete. It provides a better cohesion of the fresh concrete, higher mechanical strengths, better waterproofing and durability against liquid and gaseous aggressive agents.

Mapefluid PZ500 must be added to the dry components of the mix (cement and aggregate) before the batching water. The **Mapefluid PZ500** mix is placed and worked like normal concrete.

Dosage

20-60 kg per m³ of the mix.

Packaging

11 kg bags. 800 kg big bags are available on request.





SISTINE HALLS - Vatican City
Products used: GRANIRAPID, ULTRACOLOR and MAPEFLEX PU21
were used to install porcelain tiles over MAPECEM screeds

Mapecem



Special fast setting hydraulic binder for the preparation of rapid setting and drying (24 hours) screeds with controlled shrinkage.

Applications:

Formation of floating and bonded screeds on both existing and new slabs for the installation of ceramic tiles, stone material, wood or any other flooring where rapid drying and immediate relaying is required. **Mapecem** must always be mixed with graded aggregates. Bonded screeds (less than 35 mm thickness) and patching first require the application of a **Mapecem** and **Planicrete** anchoring slurry. For floating screeds (at least 35 mm thick) lay a polyethylene sheet beforehand and use aggregates being graded from 0 to 8 mm in diameter.

Technical data:

Recommended mixture ratio: 350-450 kg of **Mapecem** with 1 m³ aggregates (0 to 8 mm diameter) and with 80-160 kg of water depending on the aggregate moisture.

Open time of the mixture: 20-30 minutes.

Set to light foot traffic: after 2-3 hours.

Waiting time before installation: 3 hours for ceramic tiles and natural stone.

Residual moisture after 24 hours: less than 2%.

Storage: 12 months.

Consumption

3.5-4.5 kg/m² per cm of thickness.

Packaging

20 kg bags.



Mapecem Pronto



Pre-blended, ready-to-use, quick-setting and drying (24 hours), controlled-shrinkage mortar for screeds.

Applications:

For the formation of both floating and bonded screeds on either old or new floor slabs, for laying ceramic, stone material or any other type of floor covering which requires quick drying and immediate laying of the material. **Mapecem Pronto** is ready-to-use and it only needs to be blended with water. **Mapecem Pronto** is the ideal solution where finding good quality inert material of the correct grade is difficult, or in the case of installations in areas, such as historical town centres, where transportation and preparation of the blend with traditional binders becomes problematic. It is suitable for both internal and external screeds. Installation of bonded screeds and repair operations (less than 35 mm thickness) require that bonding slurry made using **Mapecem Pronto** and **Planicrete** is applied beforehand, while floating screeds (thickness above 35 mm) must be laid over sheets of polythene.

Technical data:

Recommended mixture ratio: one 25 kg bag of **Mapecem Pronto** with approx. 2.2 litres of water.

Open time of the mixture: 20-30 minutes.

Set to light foot traffic: after 2-3 hours.

Waiting time before installation: 3 hours for ceramic and natural stone.

Residual moisture after 24 hours: less than 2%.

Storage: 12 months.

Consumption

approx. 20 kg/m² per cm of thickness.

Packaging

25 kg bags.



Topcem



Special fast setting hydraulic binder for the preparation of normal setting and fast drying (4 days) screeds with controlled shrinkage.

Applications:

Formation of floating and bonded screeds on existing and new slabs for the installation of wood, ceramic tiles, natural stone or any other flooring where fast drying is required for short installation times. Suitable for interior and exterior use.

Topcem, mixed with graded aggregates and water, hardens within 24 hours and is completely dry within 4 days.

Bonded screeds and patching (less than 35 mm thicknesses) first require the application of a **Topcem** and **Planicrete** anchoring slurry. For floating screeds (thicknesses above 35 mm) lay a polyethylene sheet beforehand.

Technical data:

Recommended mixture ratio: 200-250 kg of **Topcem** with 1 m³ aggregates (0 to 8 mm diameter) and with 120-140 kg of water for dry aggregates.

Open time of the mixture: 40-60 minutes.

Set to light foot traffic: after 12 hours.

Waiting time before installation:

24 hours for ceramic tiles and 2 days for natural stone.

Residual moisture after 4 days: less than 2%.

Storage: 12 months.

Consumption

2-2.5 kg/m² per cm of thickness.

Packaging

20 kg bags.



Topcem Pronto



Ready to use prepacked mortar for fast-drying (4 days) normal setting screeds with controlled shrinkage.

Applications:

Formation of floating and bonded screeds on existing and new slabs for the installation of ceramic tiles, stone material, or any other flooring where fast drying is required for short installation times.

Topcem Pronto is ready to use and must be mixed just with water.

Topcem Pronto is the ideal solution where good quality graded aggregate is hard to find or for job sites such as those in city centres where the logistics involved in mixing conventional binders can be difficult.

Topcem Pronto is suitable for screeds used in interiors and exteriors.

Bonded screeds and patching (less than 35 mm thicknesses) first require the application of a **Topcem Pronto** and **Planicrete** anchoring slurry.

For floating screeds (thicknesses above 35 mm) lay a polyethylene sheet beforehand.

Technical data:

Recommended mixture ratio: one 25 kg bag of **Topcem Pronto** with 1.7 l of water.

Open time of the mixture: 40-60 minutes.

Set to light foot traffic: after 12 hours.

Waiting time before installation: 24

hours for ceramic tiles and 2 days for natural stone.

Residual moisture after 4 days: less than 2%.

EMICODE: EC1 R - extremely low emission level.

Storage: 12 months.

Consumption

18-20 kg/m² per cm of thickness in relation to the degree of compaction.

Packaging

25 kg bags.



Eporip



Two-component solvent free epoxy adhesive, for monolithic sealing of cracks in screeds.

Applications:

Creation of monolithic adhesion between new and existing concrete. Bonding precast concrete sections or steel to concrete when rigid joints are required between interfacing structural elements. Rigid filling of cracks in screeds, concrete floors, etc. when it is used to obtain a monolithic structure. Apply **Eporip** with a brush or a trowel on clean and dry surfaces. Shrinkage cracks should be sealed by pouring **Eporip** into the cracks only after all the hydraulic shrinkage which caused the cracks has finished.

Technical data:

Pot life: 60 minutes.
Open time: 5 hours.
Setting time: 24 hours.
Final cure time: 15 days.
Application: by brush, trowel, pouring.
Storage: 24 months.

Consumption

0.5-2 kg/m² (1.35 kg per litre of cavity to be filled).

Packaging

10 and 2 kg kits.



Eporip Turbo



Very fast hardening two-component polyester resin.

Applications:

- Sealing cracks in screeds.
- By adding dry sand, **Eporip Turbo** can be used to manufacture mortars for small reparations.

Eporip Turbo hardens in approximately 20 minutes.

Technical data:

Consistency: part A: fluid paste; part B: fluid paste.
Colour: part A: grey; part B: white.
Mixing ratio: part A : part B = 500 : 8.
Flammability: yes.
Application temperature range: from +5°C to +30°C.
Setting time: 20-30 minutes.
Workability: 7 minutes.
Storage: 12 months.
Application: by trowel or by pouring.

Consumption

1.7 kg per litre of cavity to be filled.

Packaging

508 kg metal cans
 (Part A: 500 g; Part B: 8 g).



Levelling compounds

Ultraplan Eco



Ultra-fast hardening self-levelling smoothing compound with very low VOC content.

Applications:

Interior levelling of new and existing substrates, as long as not subject to moisture, to make them suitable for receiving all types of flooring where high resistance to loads and traffic is required. Levelling existing floors provided they are solid, dry and clean.

Ultraplan Eco is applied up to 10 mm thick per layer by trowel or pump. For the installation of wooden floors the minimum thickness must be 3 mm.

Technical data:

Pot life: 20-30 minutes.

Application thickness: from 1 to 10 mm.

Set to light foot traffic: approximately 3 hours.

Waiting time before installation: 12 hours.

Colour: pinkish grey.

Application: trowel, squeegee, or pump.

EMICODE: EC1 - extremely low emission level.

Storage: 12 months.

Consumption

1.6 kg/m² per mm of thickness.

Packaging

23 kg bags.



Ultraplan



Ultra-fast hardening self-levelling smoothing compound.

Applications:

Interior levelling of new and existing substrates to make them suitable for receiving all types of flooring where a high resistance to loads and traffic is required. Levelling existing floors provided they are solid, dry and clean. **Ultraplan** is applied up to 10 mm thick per layer by trowel or pump. For the installation of wooden floors the minimum thickness must be 3 mm.

Technical data:

Pot life: 20-30 minutes.

Application thickness: from 1 to 10 mm.

Set to light foot traffic: approximately 3 hours.

Waiting time before installation: 12 hours.

Colour: pinkish grey.

Application: trowel, squeegee, or pump.

EMICODE: EC1 - extremely low emission level.

Storage: 12 months.

Consumption

1.6 kg/m² per mm of thickness.

Packaging

23 kg bags.





Ultraplan Maxi



Ultra-fast hardening self-levelling smoothing compound for thicknesses from 3 to 30 mm.

Applications:

Interior levelling of new and existing substrates to make them suitable for receiving all types of flooring where high mechanical strength is required. Levelling existing floors provided they are solid, dry and clean.

Ultraplan Maxi is applied from 3 to 30 mm thick per layer by trowel or pump.

Technical data:

Pot life: 30-40 minutes.

Application thickness: from 3 to 30 mm.

Set to light foot traffic: approximately 3 hours.

Waiting time before installation: from 2 days to 2-3 weeks depending on the thickness.

Colour: grey.

Application: trowel, squeegee, or pump.

EMICODE: EC1 - extremely low emission level.

Storage: 12 months.

Consumption

1.7 kg/m² per mm of thickness.

Packaging

25 kg bags.



Plano 3



Rapid hardening self-levelling smoothing compound, especially suitable for pump applications.

Applications:

Interior levelling of new and existing substrates to make them suitable for receiving all types of flooring where a good resistance to loads and traffic is required. Levelling existing floors provided they are solid, dry and clean. Especially suitable for the preparation of substrates that will receive raising floors.

Plano 3 is applied from 3 to 10 mm thick with a trowel or pump.

Technical data:

Pot life: approximately 20 minutes.

Application thickness: from 3 to 10 mm.

Set to light foot traffic: 4-6 hours.

Waiting time before installation: 24-48 hours.

Colour: pinkish grey.

Application: trowel, squeegee, or pump.

Storage: 12 months.

Consumption

1.6 kg/m² per mm of thickness.

Packaging

25 kg bags.



POSTGIROBYGGET - Oslo - Norvegia
Prodotti usati: appretti ed autolivellanti Rescon MAPEI

Fiberplan



Fibre-reinforced ultra-fast hardening self-levelling smoothing compound.

Applications:

Interior levelling thicknesses from 3 to 10 mm of existing and new wooden floors, wooden boarding, chip-board panels, ply-wood, parquet. Smoothing cementitious, terrazzo, old ceramic tile and natural stone substrates. **Fiberplan** is suitable for wheeled chair traffic and heated flooring.

Technical data:

Pot life: 20-30 minutes.

Application thickness: from 3 to 10 mm.

Set to light foot traffic: 3 hours.

Waiting time before installation: 12 hours.

Colour: pinkish grey.

Application: trowel or squeegee.

Storage: 12 months.

Consumption

1.5 kg/m² per mm of thickness.

Packaging

25 kg bags.



Nivorapid



Ultra-fast drying thixotropic cementitious levelling mortar, also suitable for vertical applications.

Applications:

Interior levelling of all types of substrates normally found in the building industry provided they are clean and not subject to moisture, such as concrete slabs and walls, masonry, renders and cementitious screeds, etc. Also suitable for existing floors and walls, natural stone and terrazzo floors. Suitable for repairing or levelling steps, edges of pillars, landings and arrises of floors, walls and soffits. Especially recommended where the substrate must be put back into use within a short time. By mixing **Nivorapid** with **Latex Plus** in substitution to water, a highly deformable smoothing compound is obtained with excellent bonding strength also on surfaces in metal, old rubber floors, PVC, chipboard wood, parquet, linoleum, etc.

Technical data:

Pot life: 15 minutes.

Application thickness: from 1 to 20 mm.

Set to light foot traffic: approximately 2 hours.

Waiting time before installation: 4-6 hours.

Colour: grey.

Application: metal trowel.

EMICODE: EC1 R - extremely low emission level.

Storage: 12 months.

Consumption

1.6 kg/m² per mm of thickness.

Packaging

25 kg bags and 4x5 kg packages.





Nivoplan



Levelling mortar for interior and exterior walls and ceilings.

Applications:

Interior and exterior levelling "out-of-plumb" walls, rough or damaged renders, brick walls before laying ceramic tiles. Suitable for applying in thin coats on all conventional surfaces (concrete, cement-lime mortar, cementitious mortar, etc.). To improve bonding or consistency of thin coats, add 1 or 2 kg of **Planicrete** per bag. As an alternative, it is possible to use **Eco Prim Grip** to promote bonding on concrete.

Technical data:

Applications: on walls only.

Pot life: 2-3 hours.

Application thickness: from 2 to 30 mm.

Waiting time before installation: ≥ 4 hours depending on thickness.

Colours: grey and white.

Application: trowel.

Storage: 12 months.

Consumption

1.4 kg/m² per mm of thickness.

Packaging

25 kg bags.



Planicrete



Synthetic-rubber latex for cementitious mixes.

Applications:

Admixture to improve mechanical and adhesive strength of cementitious mixes for screeds, renders, small-thickness renders, etc. Additive for cement based adhesive slurries for anchoring bonded screeds, filling holes or repairing damaged sections of screeds, cementitious floors, etc. Additive for spatterdash to provide anchoring for renders. Do not use pure **Planicrete** as a primer or slurry, always mix it with Portland cement, or when required, with **Mapecem**, **Mapecem Pronto**, **Topcem** or **Topcem Pronto**.

Technical data:

Storage: 24 months. Protect from frost.

Consumption

depends on dilution and thickness of mortar.

Packaging

25 - 10 - 5 kg drums and 12x1 kg packs.



Waterproofers

Mapelastic



Two-component flexible cementitious mortar for waterproofing concrete, balconies, terraces, bathrooms and swimming pools.

Applications:

Use **Mapelastic** to waterproof bathrooms, showers, balconies, terraces and swimming pools before the installation of ceramic tiles and provide a highly flexible, protective and waterproof coating to concrete structures particularly subject to cracking.

Mapelastic seals hairline cracks already present in substrates.

Mapelastic is supplied in two pre-measured components which must be mixed together without adding water or other ingredients. The mortar is applied with a trowel onto perfectly clean and sound surfaces that have been previously dampened with water.

Mapelastic has excellent bonding properties when applied on concrete surfaces, cementitious screeds and render and stone (which must be clean and well attached to the substrate).

Mapelastic can be applied up to 2 mm thick in a single coat. When applying to surfaces particularly stressed or crazed, it is essential to embed a 4 x 4.5 mm square-grid **Mapenet 150**.

To further improve both elongation at failure and crack bridging of **Mapelastic**, we recommend inserting **Mapetex Sel**, macro-holed non-woven polypropylene fabric.

Mapelastic meets the requirements of **EN 1504-2** standards, in compliance with **PI, MC and IR** principle, for concrete protection.

Mapelastic also complies to EN 14891 standards.

Technical data:

Pot life: 60 minutes.

Waiting time: 4-5 hours between layers;

5 days before installing the ceramic tiles.

Colour: grey.

Application: flat trowel.

Storage: Part A: 12 months.

Part B: 24 months. Protect from frost.

Consumption

1.7 kg/m² per mm of thickness.

Packaging

32 kg kits (part A 24 kg + part B 8 kg).



Mapelastic Smart



Two component, high flexibility cementitious mortar, for waterproofing concrete surfaces, balconies, terraces, basins and swimming pools. Can be applied by brush or with a roller.

Applications:

Mapelastic Smart is used to form highly flexible, waterproof and protective dressings on concrete structures, even those subject to cracking. **Mapelastic Smart** may also be used to cover up micro-cracking in concrete or render. **Mapelastic Smart** is supplied in the form of two pre-dosed components, which must be mixed together without adding either water or any other ingredient.

Mixing ratio: A : B = 2 : 1.

The mortar is applied by brush, roller or spray-rendering machine on surfaces which must be perfectly clean and solid, and which have been dampened with water beforehand.

Mapelastic Smart has excellent bonding properties when applied on concrete surfaces, cementitious screeds and render and stone (which must be clean and well attached to the substrate). With **Mapelastic Smart**, a levelling layer of up to 2 mm thick may be applied in one single coat.

If the product is to be applied on surfaces which are highly stressed or which have micro-cracking, 4 x 4.5 mm **Mapenet 150** must be inserted. To further improve both elongation at failure and crack bridging of **Mapelastic Smart**, we recommend inserting **Mapetex Sel**, macro-holed non-woven polypropylene fabric.

Mapelastic Smart meets the requirements of **EN 1504-2** standards, in compliance with **PI, MC and IR** principle, for concrete protection.

Mapelastic Smart also complies to EN 14891 standards.

Technical data:

Pot life: 60 minutes.

Waiting time: 4-5 hours between each coat;

5 days before laying ceramic tiles.

Colour: grey.

Application: by brush, roller or spray-rendering machine.

Storage: part A: 12 months; part B: 24 months. Protect from frost.

Consumption

– approx. 1.6 kg/m² per mm of thickness when roller or brush applied;

– approx. 2.2 kg/m² per mm of thickness when spray applied.

Packaging

30 kg kits (part A 20 kg + part B 10 kg).





THE WATERPROOFER

Mapelast[®]Flexible
cementitious
membrane**Monolastic**

One component, flexible cementitious mortar for waterproofing balconies, terraces and bathrooms.

Applications:

Monolastic is used for waterproofing balconies, terraces, bathrooms and showers before installing ceramic tiles or mosaics.

Monolastic is a one component, cementitious waterproofing mortar with cementitious binders, selected, fine-grained aggregates and special, flexible acrylic polymers.

Once mixed with water, **Monolastic** forms a paste with excellent workability characteristics, and which is easy to apply with a trowel, roller or brush.

Monolastic also bonds extremely well to all surfaces in concrete, masonry, ceramic and marble, if they are solid and clean.

Monolastic may be used to form a smoothing layer up to 2 mm thick in a single application. If applied on surfaces subject to high and/or widespread stresses, 4 x 4.5 cm patches of **Mapenet 150** glass fibre must be embedded in the layer.

To improve the elongation and crack-bridging properties of **Monolastic**, we recommend inserting **Mapetex Sel**, macro-holed non-woven polypropylene fabric.

Monolastic complies to EN 14891 standards.

Technical data:

Pot life: 60 minutes.

Waiting time: 2 hours between each coat; 2 days before laying ceramic tiles.

Colour: light grey.

Application: brush, roller or trowel.

Storage: 12 months.

Consumption

1.1 kg/m² per mm of thickness.

Packaging

20 kg paper bags.

**Monolastic Ultra**

One component, highly-flexible cementitious mortar for waterproofing concrete, balconies, terraces, bathrooms and swimming pools.

Applications:

Monolastic Ultra is used for waterproofing balconies, terraces, swimming pools, bathrooms and showers before fixing ceramic materials.

Monolastic Ultra is a one component, cementitious waterproofing mortar with cementitious binders, selected, fine-grained aggregates and special acrylic polymers.

Once mixed with water, **Monolastic Ultra** forms a paste with excellent workability characteristics which is easy to apply with a trowel, roller or brush, and which may also be applied on vertical surfaces without slump and without waste.

Monolastic Ultra also bonds extremely well to all concrete, masonry, ceramic and marble surfaces, as long as they are solid and clean.

Monolastic Ultra may be used to form a smoothing layer up to 2 mm thick in a single application. If applied on surfaces subject to high and/or widespread stresses, 4 x 4.5 cm patches of **Mapenet 150** glass fibre must be embedded in the layer.

To improve the elongation and crack-bridging properties of **Monolastic Ultra**, we recommend inserting **Mapetex Sel**, macro-holed non-woven polypropylene fabric.

Monolastic Ultra complies to EN 14891 standards.

Technical data:

Pot life: 60 minutes.

Waiting time: 2 hours between each coat; 2 days before laying ceramic tiles.

Colour: light grey.

Application: brush, roller or trowel.

Storage: 12 months.

Consumption

approximately 1.1 kg/m² per mm of thickness.

Packaging

20 kg paper bags.



New

Mapenet 150



Alkali-resistant glass fibre mesh in compliance with ETAG 004 guides for reinforcing waterproof protections, anti-fracture membranes and insulation coatings.

Applications:

For reinforcing waterproofing membranes carried out with **Mapelastick**, **Mapelastick Smart**, **Monolastic**, **Monolastic Ultra**, **Mapegum WPS**, **Aquaflex System**.

Technical data:

Mesh size: 4x4.5 mm.

Weight: 157 g/m².

Packaging

50 m long and 1 m high rolls.

Mapetex Sel



Non-woven, macro-holed polypropylene fabric for reinforcing waterproofing membranes.

Applications:

Mapetex Sel is a non-woven, macro-holed fabric made from synthetic polypropylene fibres which is totally waterproof; it is used in conjunction with **Mapelastick**, **Mapelastick Smart**, **Monolastic** or **Monolastic Ultra**, flexible cementitious mortars, to apply waterproofing layers on balconies, terraces, swimming pools, basins, etc.

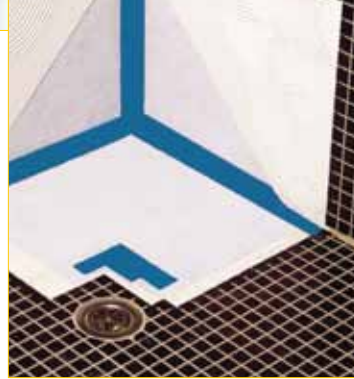
Thanks to the mechanical properties of the product, the characteristics of **Mapelastick**, **Mapelastick Smart**, **Monolastic** or **Monolastic Ultra**, such as toughness, punch-resistance, ultimate elongation and crack-bridging, are further improved.

Packaging

25 m x 1 m-wide rolls.



Mapegum WPS



Fast drying flexible liquid membrane for interior waterproofing.

Applications:

Liquid waterproofing membrane for interior surfaces provided they are not continually immersed in water or subject to rising damp. **Mapegum WPS** can be used on all types of substrates such as: gypsum board walls, gypsum and cementitious renders, light-weight concrete blocks, wood, existing ceramic tiles, cementitious and anhydrite substrates, wood substrates, magnesite, hot poured asphalt. Waterproof for bathroom and shower walls and floors before installing ceramic tiles and natural stone; waterproofing kitchen floors and walls and counter tops before installing ceramic tiles.

N.B.: **Mapegum WPS** has been certified by the following institutes as a waterproofing membrane for damp environments, to be applied underneath tiled surfaces.

- Säurefriesner (Germany): tested in accordance with current standards.
- SP Swedish National Testing & Research Institute (Sweden): tested in accordance with BKR Standards (Building Ceramics Council).
- Norwegian Research & Building Institute: tested in accordance with current standards.

Technical data:

Formation of surface skin: 1 hour.

Complete drying (2 mm of thickness at +23°C): 5 hours.

Waiting time: 1-2 hours between each coat; 12-24 days before laying ceramic.

Colour: light grey.

Application: by trowel, with a roller or by spraying.

Storage: 24 months. Protect from frost.

Consumption

1.5 kg/m² per mm of thickness.

Packaging

5, 10 and 25 kg drums.



Mapegum EPX Mapegum EPX-T



Two-component liquid epoxy membrane for deformable chemical-resistant waterproofing prior to installing ceramic tile coverings.

Applications:

Acid-resistant waterproofing of floors prior to installing ceramic tiles in factories, industrial kitchens, slaughterhouses, etc. to protect the substrate from chemical aggression. For walls, use

Mapegum EPX-T. Mapegum EPX and **Mapegum EPX-T** should be applied in two coats with a brush, roller or trowel in a total thickness of not less than 1 mm. To install tiles over **Mapegum EPX** and **Mapegum EPX-T**, use **Kerapoxy**, or sand the second coat while still fresh and use **Granirapid**, **Elastorapid** or **Adesilex P4**.

Technical data:

Pot life: 30-40 minutes.

Set to light foot traffic: approx. 24 hours.

Ready for use: approx. 3 days.

Colour: grey.

Application: brush, roller and trowel.

Storage: 24 months.

Consumption

1.4 kg/m² per mm of thickness.

Packaging

10 kg kits (8.7 + 1.3).



Mapeband



Alkali-resistant rubber tape with felt for cementitious waterproofing systems and liquid membranes.

Applications:

Flexible waterproofing of expansion joints of terraces, balconies, etc. and of wall joints and floor to wall joints to be treated with **Mapegum WPS**, **Mapelastic**, **Mapelastic Smart**, **Monolastic** or **Monolastic Ultra**. Waterproofing of expansion joints of precast panels, piping, bath, shower and kitchen drains using the special **Mapeband** gaskets.

N.B. The joints between the **Mapeband** pieces must be bonded with **Adesilex T Super** or **Adesilex LP**.

Technical data:

Length: 50 m.

Width: 120 mm.

ULTIMATE ELONGATION: > 400%.

Packaging

50 m x 12 cm rolls;
sealing gasket for outlets
118 x 118 mm and 300 x 300 mm;
inside corner 90°
outside corner 270°.



Adesilex T Super



Adhesive for joining Mapeband rubber strip.

Applications:

Bonding the joints between pieces of **Mapeband**. Spread the adhesive onto one of the parts to be joined, making sure that all the joint is covered; attach the two pieces of **Mapeband** immediately and carefully massage the joint.

Technical data:

Colour: red, transparent.

Application: by trowel.

Storage: 12 months.

Consumption

0.07 kg per metre in length of **Mapeband** joined together (width of the rubber part: 7 cm).

Packaging

1 kg tins and boxes of 10 tubes of 90 g.



Mapeband PE120



PVC tape for waterproofing systems formed using liquid membrane.

Applications:

Flexible waterproofing seal of edges and expansion joints to be treated with **Mapegum WPS**.

N.B. Joints between pieces of **Mapeband PE 120** must also be bonded using **Mapegum WPS**.

Packaging

– 50 m and 100 m rolls, total width 120 mm;
– 90° and 270° corner pieces
(boxes of 25 pieces);
– seals for through holes of 120x120 mm
(boxes of 25 pieces) and 425x425 mm
(boxes of 10 pieces).





Mapeband TPE



TPE tape for flexible sealing and waterproofing expansion joints and cracks subject to movements up to 5 or 10 mm, using Mapeband TPE 170 or Mapeband TPE 325 respectively.

Applications:

It is particularly recommended for waterproofing structural joints in covering applications terraces and swimming pads. **Mapeband TPE** must only be bonded on surfaces which are free of oil, paint, dust and loose parts using **Adesilex PG4**. Straps of **Mapeband TPE** may be joined by carrying out using the "cold-weld" technique by applying contact adhesive, such as **Adesilex LP** poly-chloroprene adhesive in solvent, on both surfaces.

Packaging

- **Mapeband TPE 170:**
30 m x 17 cm rolls;
- **Mapeband TPE 325:**
30 m x 32.5 cm rolls.



Adesilex PG4



Two-component, thixotropic, epoxy adhesive with modified rheology for bonding Mapeband TPE.

Applications:

Adesilex PG4 is a two-component adhesive made up of an epoxy resin base, fine-grained selected aggregates and special admixes. **Adesilex PG4** is used both as an adhesive for bonding synthetic braces used in waterproofing applications and for repairing, sealing and bonding elements in concrete, reinforced cement, metal and natural stone. **Adesilex PG4** is characterised by its low viscosity and, as a result, offers good wetting of the substrate. This makes it easy to apply by trowel on horizontal and vertical surfaces and on ceilings without dripping, thanks to it being highly thixotropic. To prepare the product, pour component B (white) into component A (grey) and mix together with a drill fitted with a low-speed mixing attachment until a homogenous mix is obtained.

Technical data:

Pot life: 75 minutes.
Setting time: 5 hours.
Complete hardening: 7 days.
Application: trowel.

Consumption

1.55 kg/m² per mm of thickness.

Packaging

6 kg (A+B);
30 kg (A+B).



LA ISLA BONITA SWIMMING POOL - Pontecagnano (SA) - Italy
Waterproofing of the swimming pool with MAPELASTIC and MAPEBAND,
protection and decoration with ELASTOCOLOR WATERPROOF

Primers

Primer G



Synthetic resin based primer in water dispersion.

Applications:

Treating gypsum or anhydrite surfaces prior to installing ceramic tiles and stone material with cementitious adhesives or levelling. The surfaces to be treated must be clean and porous.

Dilute **Primer G** with water from 1:1 to 1:3 to protect old floors before levelling, to fix the residual dusting and to provide even absorption of substrates prior to levelling or laying. Apply on perfectly dry gypsum or anhydrite surfaces (residual moisture content less than 0.5%).

Technical data:

Minimum drying time: 2 hours.

Application: brush or by spray.

EMICODE: EC1 - extremely low emission level.

Storage: 24 months. Protect from frost.

Consumption

0.1-0.2 kg/m² depending on use.

Packaging

25-10-5 kg drums and 12x1 kg packs.



Primer S



Waterproofing primer in water dispersion.

Applications:

Waterproofing gypsum-board, wood particle board and the like, gypsum plaster, etc. subject to the presence of water in bathrooms, showers, cooking areas, etc. before the installation of ceramic tiles with cementitious or paste adhesives.

For waterproofing anhydrite screeds before fixing ceramic tiles or other floors subject to frequent washing.

Technical data:

Waiting time between coats:

20-30 minutes.

Waiting time before installation of coating: approx. 12 hours.

Application: brush or roller.

Storage: 24 months. Protect from frost.

Consumption

0.1 kg/m² per coat.

Packaging

5 kg bottles and 12x1 kg packs.



Mapeprim SP



Two-component solvent-free primer.

Applications:

Treatment of gypsum and anhydrite surfaces before the installation of ceramic tiles or stone material with cementitious adhesives. **Mapeprim SP** improves the bonding of smoothing and levelling compounds such as **Ultraplan** and **Planolit** on very smooth and compact substrates such as ceramic tiles, natural stone and wood. Apply the levelling compounds while **Mapeprim SP** is still "indentable" and before it has completely hardened.

Use **Mapeprim SP** on dry substrates and not subject to rising damp.

Technical data:

Pot life: approximately 1 hour.

Waiting time before applying a smoothing compound: between 1 and 3 hours.

Application: brush, roller or flat trowel.

Storage: 24 months. Protect from frost.

Consumption

0.1-0.2 kg/m².

Packaging

8 kg kits (4+4);

4 kg kits (2+2).



New

Mapeprim 1K



One-component solvent-free primer.

Applications:

Mapeprim 1K is used to prepare flat, compact and non porous substrates such as ceramic tile and stone material floor and wall coverings before the application of MAPEI smoothing and levelling compounds or before the installation of tiles with cementitious adhesives. Treatment of poured asphalt, wood, chip-board, PVC and linoleum surfaces. Protection from moisture for wooden surfaces. Apply the smoothing compound or install the tiles *within 24 hours*. If installation will be carried out *after 24 hours* of the application of the primer, spread fine sand over the still fresh Mapeprim 1K layer. Use Mapeprim 1K only over dry surfaces and not subject to rising damp.

Technical data:

Application temperature range: from +5 to +35°C.

Waiting time before applying the smoothing compound: between 1 and 3 hours.

Maximum time for applying the smoothing compound: 24 hours.

Application: brush, roller or flat trowel.

Storage: 24 months.

Consumption

0.1-0.2 kg/m².

Packaging

5 kg drums.



Eco Prim T



Solvent-free acrylic primer with extremely low emission levels of volatile organic compounds (VOC), for both absorbent and non-absorbent substrates.

Applications:

Multi-purpose primer to improve the bond of smoothing and levelling compounds on all surfaces, both absorbent and non-absorbent: cementitious, gypsum, anhydrite, asphalt, ceramics, wood, tiles. It is particularly suitable as a bonding promoter on old adhesives residues for resilient and textile floors.

Technical data:

Consistency: fluid liquid.

Colour: white.

Inflammable: no.

Recommended application temperature range: from +5°C to +40°C.

EMICODE: EC1 - extremely low emission level.

Storage: 24 months.

Application: by brush or roller.

Consumption

0.10-0.20 kg/m².

Packaging

5 kg and 20 kg drums.



Eco Prim Grip



Multi-purpose, ready-to-use acrylic resin and inert silica based bonding promoter and primer, with extremely low emission level of volatile organic compounds (VOC). Suitable for renders, smoothing and levelling compounds and adhesives for ceramics.

Applications:

Multi-purpose, ready-to-use bonding promoter for renders. Guarantees the formation of a rough surface with good gripping properties to ensure an excellent bond even on smooth or low-absorbent substrates. It may be applied on concrete, brickwork, plasterboard, wood, cellular cement, ceramics, render, paintwork and gypsum. It may also be used to improve the bond of smoothing and levelling compounds and adhesives for ceramic tiles in interior on non-absorbent surfaces: ceramics, marble, etc.

Technical data:

Consistency: creamy liquid.

Colour: grey.

Waiting time before applying render: 30 minutes.

Waiting time before applying smoothing compound: 30 minutes.

Application temperature range: from +5°C to +35°C.

EMICODE: EC 1 - extremely low emission level.

Storage: 24 months.

Application: by roller or brush.

Consumption

0.20-0.30 kg/m².

Packaging

5 kg and 10 kg drums.



Cement-based adhesives

Tixobond White



Ultra-white cementitious adhesive with no vertical slip and extended open time for the installation of ceramic tiles on walls (thickness of adhesive up to 15 mm).

Applications:

Bonding ceramic mosaic and all types of ceramic tiles (small sizes for exterior and all sizes for interior applications) on traditional cementitious render walls, rigid plasterboard walls and gypsum substrates after application of a suitable primer.

N.B. Particularly recommended for laying ceramic diagonally or starting from the top and working downwards, without using spacers. Suitable for laying tiles with highly-ribbed or deep-set backs, and for laying on uneven substrates and renders without levelling them out beforehand, up to a thickness of 15 mm.

Technical data:

Pot life: more than 8 hours.

Open time: 30 minutes.

Grouting:

– on walls: 4-8 hours;

– on floors: 24 hours.

Set to light foot traffic: 24 hours.

Ready for use: approx. 14 days.

Colour: white.

Application: notched trowel n° 4, 5, 6 or 10.

EMICODE: EC1 R - extremely low emission level.

Storage: 12 months.

Consumption

1.2 kg/m² per mm of thickness.

Packaging

25 kg bags.

Tixobond White is CE marked, as declared in ITT certificate n° 25040602/Gi (TUM) issued by the Technische Universität München laboratory (Germany)



Kerabond



Cementitious adhesive for ceramic tiles.

Applications:

Interior and exterior floor and wall bonding of all types of medium sized ceramic tiles and mosaics for environments that are not particularly stressed on conventional walls with cementitious renders, cementitious screeds and on anhydrite screeds and gypsum plasters specifically primed beforehand.

N.B. When mixing **Kerabond** with **Isolastic** as a substitute for water, the performance characteristics improve, satisfying **class C2ES2** (improved cementitious highly deformable adhesive) with extended open time according to EN 12004.

Technical data:

Pot life: over 8 hours.

Open time: 20 minutes.

Grouting:

– walls: 4-8 hours;

– floors: 24 hours.

Set to light foot traffic: approx. 24 hours.

Ready for use: approx. 14 days.

Colours: grey and white.

Application: notched trowel n. 4 or 5 or 6.

EMICODE: EC1 R - extremely low emission level.

Storage: 12 months.

Consumption

2-5 kg/m².

Packaging

25 kg bags and 4x5 kg boxes.

Kerabond is CE marked, as declared in ITT certificates n° 25070080/Gi (TUM) and n° 25080025/Gi (TUM) issued by the Technische Universität München laboratory (Germany)



Kerabond T



Cementitious adhesive with no vertical slip for ceramic tiles.

Applications:

Interior and exterior floor and wall bonding of all types of medium sized ceramic tiles and mosaics for environments that are not particularly stressed on conventional walls with cementitious renders, cementitious screeds and on anhydrite screeds and gypsum plasters specifically primed beforehand.

N.B. When mixing **Kerabond T** with **Isolastic** as a substitute for water, the performance characteristics improve, satisfying **class C2S2** (improved cementitious highly deformable adhesive) according to EN 12004.

Technical data:

Pot life: over 8 hours.

Open time: 20 minutes.

Grouting:

– walls: 4-8 hours;

– floors: 24 hours.

Set to light foot traffic: approx. 24 hours.

Ready for use: approx. 14 days.

Colours: grey and white.

Application: notched trowel n. 4 or 5 or 6.

EMICODE: EC1 R - extremely low emission level.

Storage: 12 months.

Consumption

2-5 kg/m².

Packaging

25 kg bags and 4x5 kg boxes.

Kerabond T is CE marked, as declared in ITT certificates n° 25050176-1/Gi (TUM) and n° 25080238/Gi (TUM) issued by the Technische Universität München laboratory (Germany)



ROTONDA DELLA BESANA - Milan - Italy
Products used: MAPECEM, TOPCEM, TOPCEM PRONTO, KERAFLOR, ISOLASTIC

Kerafloor



Cementitious adhesive for ceramic tiles for thicknesses up to 15 mm.

Applications:

Interior and exterior floor and wall bonding of all types of medium sized ceramic tiles and mosaics for environments that are not particularly stressed on conventional walls with cementitious renders, cementitious screeds and on anhydrite screeds and gypsum plasters specifically primed beforehand and when the unevenness of the substrate and/or the back of the tiles require a layer thicker than 5 mm but less than 15 mm.

N.B. When mixing Kerafloor with Isolastic as a substitute for water, the performance characteristics improve, satisfying class C2S2 (improved cementitious highly deformable adhesive) according to EN 12004.

Technical data:

Pot life: over 8 hours.

Open time: 20 minutes.

Grouting:

– walls: 6-8 hours;

– floors: 24-36 hours.

Set to light foot traffic: approx. 24-36 hours.

Ready for use: approx. 14 days.

Colours: grey and white.

Application: notched trowel n. 6 or 10 or trowel for Kerafloor.

EMICODE: EC1 R - extremely low emission level.

Storage: 12 months.

Consumption

1.4 kg/m² per mm of thickness (4-10 kg/m²).

Packaging

25 kg bags.

Kerafloor is CE marked, as declared in ITT certificate n° 25050161/Gi (TUM) issued by the Technische Universität München laboratory (Germany)



Keraset



Cementitious adhesive for ceramic tiles.

Applications:

Interior and exterior floor and wall bonding of all types of small sized ceramic tiles and mosaics for environments that are not particularly stressed on conventional walls with cementitious renders, cementitious screeds and on anhydrite screeds and gypsum plasters specifically primed beforehand.

Technical data:

Pot life: 6-8 hours.

Open time: 20 minutes.

Grouting:

– walls: 3-6 hours;

– floors: 24 hours

Set to light foot traffic: approx. 24 hours.

Ready for use: approx. 14 days.

Colours: grey and white.

Application: notched trowel n. 4 or 5 or 6.

EMICODE: EC1 R - extremely low emission level.

Storage: 12 months.

Consumption

2-5 kg/m².

Packaging

25 kg bags.

Keraset is CE marked, as declared in ITT certificate n° 71230101.101 (SFV) issued by the Säurefließen-Vereinigung e.V. Grossburgwedel laboratory (Germany) and in ITT certificate n° 25080231/Gi (TUM) issued by the Technische Universität München laboratory (Germany)



Isolastic



Flexible latex additive to be mixed with Kerabond, Kerabond T, Kerafloor and Adesilex P10.

Applications:
Isolastic is a latex additive to be mixed with Kerabond, Kerabond T or Kerafloor to improve the performance and deformability to satisfy class C2ES2 (improved cementitious highly deformable adhesive with extended open time) when mixed with Kerabond or C2S2 (improved cementitious highly deformable adhesive) when mixed with Kerabond T and Kerafloor according to EN 12004. Adhesives obtained this way are suitable for interior and exterior bonding of all types of ceramic tiles (double-fired, single-fired, quarry tiles, klinker, terracotta, glass mosaics, porcelain tiles, etc.) and stone material on conventional substrates, on concrete, precast concrete panels as long as well cured (3 months), heating panels, fibrous cement, plaster board and wood or wood composition panels as long as they are firmly fixed. Installations can be carried out over gypsum-based or anhydrite surfaces only if specifically primed beforehand. Isolastic diluted 1:1 with water can be also mixed with Adesilex P10 to improve its deformability to satisfy class S1 requirements according to EN 12004.

Technical data:
Kerabond/KerabondT/Kerafloor+Isolastic:
Pot life: over 8 hours.
Open time: 20 minutes.
Grouting:
– walls: 4-8 hours;
– floors: 24-36 hours.
Set to light foot traffic: 24-36 hours.
Ready for use: approx. 14 days.
Deformability according to EN 12004:
S2 - highly deformable (Adesilex P10 + Isolastic diluted 1:1 with water - S1 deformable).
Application: Kerabond/Kerabond T+ Isolastic: notched trowel n. 4 or 5 or 6.
Kerafloor+Isolastic: notched trowel n. 6 or 10 or trowel for Kerafloor.
Adesilex P10+Isolastic diluted 1:1 with water: notched trowel n. 4 or 5 or 6).
Storage: 24 months. Protect from frost.

Consumption
1-2 kg/m².
Packaging
25-10-5 kg drums; 12x1 kg packs.

Kerabond + Isolastic is CE marked, as declared in ITT certificates n° 25070081/Gi (TUM) and n° 25080048/Gi (TUM), Kerabond T + Isolastic is CE marked, as declared in ITT certificate n° 25070265-1/Gi (TUM) and n° 25080055/Gi (TUM), and Adesilex P10 + Isolastic is CE marked, as declared in ITT certificate n° 25080056/Gi (TUM) issued by the Technische Universität München laboratory (Germany)



Adhesives + Isolastic Latex	EN 12004 norm
KERABOND + ISOLASTIC	C2E, S2
KERABOND T + ISOLASTIC	C2, S2
KERAFLOOR + ISOLASTIC	C2, S2
KERABOND + ISOLASTIC diluted 1:1 with water	C2, S1
KERABOND T + ISOLASTIC diluted 1:1 with water	C2, S1
KERAFLOOR + ISOLASTIC diluted 1:1 with water	C2, S1
ADESILEX P10 + ISOLASTIC diluted 1:1 with water	C2TE, S1



AQUATIC PARK - Grado (Gorizia) - Italy
Products used: NIVOPLAN, MAPELASTIC,
MAPEBAND, KERACRETE,
KERAPOXY, MAPESIL AC

Keracrete + Keracrete Powder



High performance two-component cementitious adhesive with no vertical slip for ceramic tiles, glass mosaic and stone material.

Applications:

Interior and exterior, floor and wall, in basins and swimming pools, bonding of stone material (as long as moisture stable), all types of ceramic and mosaic tiles on conventional walls with cementitious renders, cementitious screeds, anhydrite screeds and gypsum walls (as long as primed beforehand), interior walls in foamed concrete blocks, gypsum board, underfloor heating systems, existing floors, fibre-cement panels, placed concrete and interior precast concrete panels (cured at least 4 months).

Particularly suitable for the installation of coverings in swimming pools, basins, etc.

Technical data:

Keracrete + Keracrete Powder:

Pot life: 90 minutes.

Open time: 20 minutes.

Grouting:

– walls: 4-6 hours;

– floors: 24 hours.

Set to light foot traffic: approx. 3 days.

Ready for use: approx. 14 days (21 days for basins and swimming pools).

Colours:

– **Keracrete Powder:** grey and white.

Application: notched trowel n. 4 or 5 or 6.

EMICODE: EC1 R - extremely low emission level.

Storage:

– **Keracrete:** 24 months. Protect from frost.

– **Keracrete Powder:** 12 months.

Consumption

0.5-1 kg/m² of **Keracrete**.

2-4 kg/m² of **Keracrete Powder**.

Packaging

– **Keracrete:** 25-10-5 kg drums;

– **Keracrete Powder:** 25 kg bags.

Keracrete + Keracrete Powder are CE marked, as declared in ITT certificates n° 25040267/Gi (TUM) and n° 25080247/Gi (TUM) issued by the Technische Universität München laboratory (Germany)



Adesilex P9



High performance cementitious adhesive with no vertical slip and extended open time for ceramic tiles.

Applications:

Interior and exterior floor and wall bonding of all types of ceramic tiles and mosaics on conventional walls with cementitious renders, cementitious screeds, anhydrite screeds and gypsum walls (specifically primed beforehand), painted interior walls, as long as the paint is well anchored, existing terrazzo or marble floors (maximum size 900 cm²) suitably cured concrete structures.

Bonding all types of ceramic and mosaic tiles (max. size of tiles 300 cm² and stable substrates) in pools and basins.

Technical data:

Pot life: over 8 hours.

Open time: 30 minutes.

Grouting:

– walls: 4-8 hours;

– floors: 24 hours.

Set to light foot traffic: approx. 24 hours.

Ready for use: approx. 14 days.

Colours: grey and white.

Application: notched trowel n. 4 or 5 or 6.

EMICODE: EC1 R - extremely low emission level.

Storage: 12 months.

Consumption

2-5 kg/m².

Packaging

25 kg bags and 4x5 kg boxes.

Adesilex P9 is CE marked, as declared in ITT certificates n° 25050141/Gi (TUM) and n° 25080230/Gi (TUM) issued by the Technische Universität München laboratory (Germany)



Adesilex P10



White high performance cementitious adhesive with no vertical slip and extended open time for glass, ceramic and marble mosaic coverings.

Applications:

Interior and exterior floor, wall and swimming pool (mixed with **Isolastic** diluted 1:1 with water) bonding of glass, ceramic and marble mosaics on paper or netting on conventional walls with cementitious renders, cementitious screeds, anhydrite screeds and gypsum walls (specifically primed beforehand), interior walls in foamed concrete blocks, gypsum board, underfloor heating systems, suitably cured concrete structures, painted interior walls, as long as the paint is well anchored. When mixing **Adesilex P10** with **Isolastic** as a 50% substitute for water, the performance characteristics and deformability improve, satisfying **class S1** (deformable adhesive) according to EN 12004. Mixed this way, **Adesilex P10** can be used for installations in swimming pools, on flexible and non porous substrates such as **Mapelastic**, **Mapelastic Smart**, **Monolastic**, **Monolastic Ultra**, **Mapegum WPS**, etc. and on existing ceramic coverings.

Technical data:

Pot life: over 8 hours.

Open time: 30 minutes.

Grouting:

– walls: 4-8 hours;

– floors: 24 hours.

Set to light foot traffic: approx. 24 hours.

Ready for use: approx. 14 days.

Colour: white.

Application: notched trowel n. 4 or 5 or 6.

EMICODE: EC1 R - extremely low emission level.

Storage: 12 months.

Consumption

2-5 kg/m².

Packaging

25 kg bags.

Adesilex P10 is CE marked, as declared in ITT certificate n° 25080061/Gi (TUM) issued by the Technische Universität München laboratory (Germany)



Keraflex Easy



Easy to apply, high performance cementitious adhesive with extended open time, for ceramic tiles and stone material, especially those that require back-buttering. Very low emission level of volatile organic compounds. Particularly suitable for laying large-sized porcelain tiles on sizeable floor areas, at a thickness of up to 10 mm.

Applications:

Bonding ceramic tiles (single-fired, twin-fired, porcelain, terracotta, klinker, etc.), stable stone material which is not sensitive to staining, and all types of mosaic, internally and externally, on walls and floors. It may be used on all common building substrates on **Mapelastic, Mapelastic Smart, Monolastic, Monolastic Ultra, Mapegum WPS**, heated screeds and old ceramic and natural stone floors, as long as they have been carefully cleaned and are well-bonded to the substrate (maximum tile size 600 cm²). Specifically recommended for sizeable floor areas and large tile sizes without the need for double-buttering, it is therefore particularly suitable for commercial, industrial and civil floors. Maximum application thickness 10 mm.

Technical data:

Pot life of mix: more than 8 hours.

Open time: > 30 minutes.

Grouting:

– on walls: after 4-8 hours;

– on floors: after 24 hours.

Set to light foot traffic: approximately after 24 hours.

Ready for use: approximately 14 days.

Colours: white and grey.

Application: n° 4, 5, 6 or 10 notched trowel.

EMICODE: EC1 R - extremely low emission level.

Storage: 12 months.

Consumption

2-5 kg/m².

Packaging

25 kg bags.

Keraflex Easy is CE marked, as declared in ITT certificate n° 25080254/Gi (TUM) issued by the Technische Universität München laboratory (Germany)



Keraflex



High performance cementitious adhesive, with no vertical slip and extended open time for ceramic tiles and stone material.

Applications:

Interior and exterior floor and wall bonding of all types of ceramic tiles and ceramic mosaics, stone material (as long as moisture stable) on conventional walls with cementitious renders, cementitious screeds, anhydrite screeds and gypsum walls (as long as primed beforehand), interior walls in foamed concrete blocks, gypsum board, underfloor heating systems, painted interior walls, as long as the paint is well anchored, existing marble, terrazzo and ceramic tile floors (maximum size of tiles 1600 cm²), substrates waterproofed with **Mapelastic, Mapelastic Smart, Monolastic, Monolastic Ultra or Mapegum WPS**, on suitably cured concrete structures. Bonding in basins and swimming pools of all types of ceramic tiles and ceramic mosaics (maximum size of tiles 400 cm² and stable substrates).

N.B. Suitable for the installation of floors subject to strong stress.

Technical data:

Pot life: over 8 hours.

Open time: 30 minutes.

Grouting:

– walls: 4-6 hours;

– floors: 24 hours.

Set to light foot traffic: approx. 24 hours.

Ready for use: approx. 14 days.

Colours: grey and white.

Application: notched trowel n. 4 or 5 or 6.

EMICODE: EC1 R - extremely low emission level.

Storage: 12 months.

Consumption

2-5 kg/m².

Packaging

25 kg bags, 4x5 kg boxes.

Keraflex is CE marked, as declared in ITT certificates n° 25040476/Gi (TUM) and n° 25080239/Gi (TUM) issued by the Technische Universität München laboratory (Germany)



MULTI-FUNCTION CENTRE TESCO - Olomuc - Czech Republic
Products used: KERAFLEX MAXI, ULTRACOLOR PLUS





Keraflex Maxi S1



High performance, deformable cementitious adhesive with no vertical slip and extended open time with Low Dust technology for ceramic tiles and stone material: particularly suitable for the installation of large sized porcelain tiles and stone material (thickness of adhesive from 3 to 15 mm).

Applications:

Interior and exterior floor and wall bonding of all types of ceramic tiles and ceramic mosaics, stone material (as long as it is moisture stable) on conventional walls with cementitious renders, cementitious screeds, anhydrite screeds and gypsum walls (as long as they are primed beforehand), interior walls in foamed concrete blocks, gypsum board, underfloor heating systems, painted interior walls (as long as the paint is well anchored), existing marble, terrazzo and ceramic floors, substrates waterproofed with Mapelastix, Mapelastix Smart, Monolastic, Monolastic Ultra or Mapegum WPS and on suitably cured concrete structures. Particularly suitable for the installation of floors subject to heavy traffic and loads. The innovative **Low Dust** technology feature of this adhesive, result in a considerable reduction of powder emission during mixing making it easier and safer for the installer compared with standard MAPEI cementitious adhesives.

Technical data:

Pot life: over 8 hours.

Open time: > 30 minutes.

Grouting:

– walls: 4-8 hours;

– floors: 24 hours.

Set to light foot traffic: approx. 24 hours.

Ready for use: approx. 14 days.

Deformability according to EN 12004:

S1 - deformable.

Colours: grey and white.

Application: notched trowel n. 4 or 5 or 6 or 10.

Storage: 12 months.

Consumption

1.2 kg/m² per mm of thickness.

Packaging

– Keraflex Maxi S1 white: 23 kg bags.

– Keraflex Maxi S1 grey: 25 kg bags.

Keraflex Maxi S1 is CE marked, as declared in ITT certificates n° 25070387/Gi (TUM) and n° 25080246/Gi (TUM) issued by the Technische Universität München laboratory (Germany)



- **Extremely low dust release (-90%)**
- **The same high performance**





Ultralite S1



Contains > 30% recycled content

One component, lightweight, deformable high performance cementitious adhesive with Low Dust technology; easy to apply by trowel, no vertical slip, extended open time and extremely high yield, for ceramic tiles and stone material. Ideal for the installation of thin porcelain tiles.

Applications:

Bonding all types and shapes of ceramic tiles (double-fired, single-fired, porcelain, klinker, terracotta, etc.) and stable stone material which is not sensitive to damp, internally and externally, on all common building substrates. Moreover its slip-resistant properties make it suitable for fixing tiles diagonally on walls. Its high back-buttering capacities make it particularly suitable for the installation of thin porcelain tiles. It is also suitable for application on uneven substrates, flexible substrates and render of up to 15 mm without prior use of a smoothing compound.

The low density of **Ultralite S1** makes for easier handling and transportation, and improves its yield by 60% compared with standard MAPEI cementitious adhesives. **Ultralite S1** contains more than 30% recycled materials.

N.B. The innovative **Low Dust** technology which characterises this product results in a drastic reduction in the amount of dust emitted while mixing the product, making the work environment more comfortable and healthy for tilers compared with standard MAPEI cementitious adhesives.

Technical data:

Pot life of mix: more than 8 hours.

Open time: >30 minutes.

Grouting:

– on walls: after 4-8 hours;

– on floors: after 24 hours.

Set to light foot traffic: approximately after 24 hours.

Ready for use: approximately 14 days.

Deformability according to EN 12004:

S1 - deformable.

Colours available: grey.

Application: n° 4, 5, 6 or 10 notched trowel.

Storage: 12 months.

Consumption

1.5-2.5 kg/m².

Packaging

15 kg bags.

Ultralite S1 is CE marked, as declared in ITT certificate n° 25080237/Gi (TUM) issued by the Technische Universität München laboratory (Germany)



Ultrafite
Technology

Ultraflex S2 Mono



Contains > 20% recycled content

One component, easy to apply, highly deformable, high performance cementitious adhesive with no vertical slip, extended open time and extremely high yield for ceramic tiles and stone material.

Applications:

For bonding all sizes of ceramic tiles, mosaics, and stone material (if stable and non-absorbent) on traditional internal and external floors and walls with cementitious render, cementitious and anhydrite screeds, plaster walls (after application of suitable primer), internal cellular concrete walls, plasterboard, heated floors, painted internal walls (if paint is well bonding).

Ultraflex S2 Mono contains more than 20% recycled material.

N.B. Because it is highly deformable, it is particularly recommended for bonding on deformable substrates such as marine board, wooden agglomerates (if sufficiently stable in the presence of water) old wooden floors, etc., cementitious screeds which are not completely cured and for laying on façades, balconies, terraces and slab floors exposed to direct sunlight and subject to temperature gradients.

Ultraflex S2 Mono also helps in reducing the noise caused by footsteps up to a maximum of 9 dB.

Technical data:

Pot life of mix: more than 8 hours.

Open time: 30 minutes.

Grouting:

– on walls: 4-8 hours;

– on floors: 24 hours.

Set to light foot traffic: approx. 24 hours.

Ready for use: 14 days.

Deformability according to EN 12004:

S2 - highly deformable.

Colour: grey.

Application: n° 4, 5, 6 or 10 notched trowel.

Storage: 12 months.

Consumption

0.9 kg/m² per mm of thickness, equivalent to 1.5-3 kg/m².

Packaging

15 kg bags.

Ultraflex S2 Mono is CE marked, as declared in ITT certificate n° 25050505/Gi (TUM) issued by the Technische Universität München laboratory (Germany)



Ultraflex S2 Quick



Contains > 20% recycled content

One component, highly deformable, high performance, rapid-setting and hydration cementitious adhesive, which is easy to apply by trowel with no vertical slip and extremely high yield, for ceramic tiles and stone material.

Applications:

For bonding all types and sizes of ceramic tiles, mosaics, and stone material which are not particularly sensitive to damp, on traditional internal and external floors and walls with cementitious render, cementitious and anhydrite screeds, plaster walls (after application of a suitable primer), internal cellular concrete walls, plasterboard, heated floors, painted internal walls (if the paint is well bonded), old marble, terrazzo and ceramic floors and waterproofing substrates with MAPEI waterproofing anti-fracture membrane.

Ultraflex S2 Quick contains more than 20% recycled material.

N.B. The high deformability of the product makes it particularly suitable for bonding on deformable substrates (marine board, wooden agglomerates which are sufficiently stable in the presence of water, old wooden floors, etc.), concrete, cementitious screeds which are not completely cured and for laying even large-sized ceramic tiles and stone material on façades, balconies, terraces, slabs floors, exposed to direct sunlight and temperature gradients. Suitable for applications on existing flooring during cold weather.

Thanks to its extraordinary bonding and quick drying characteristics, **Ultraflex S2 Quick** is particularly recommended for quick restructuring work where immediate installation is required (public buildings, transport cafes, supermarkets, airports and pedestrian areas).

Ultraflex S2 Quick also helps in reducing the noise caused by footsteps.

Technical data:

Pot life of mix: 30 minutes.

Open time: 15-20 minutes.

Grouting:

– on walls: after 2-3 hours;

– on floors: after 5-6 hours.

Set to light foot traffic: 5-6 hours.

Ready for use: 24 hours.

Deformability according to EN 12004:

S2 - highly deformable.

Colour: grey.

Application: n° 4, 5, 6 or 10 notched trowel.

Storage: 12 months.

Consumption

0.9 kg/m² per mm of thickness, equal to 1.5-3 kg/m².

Packaging

15 kg bags.

Ultraflex S2 Quick is CE marked, as declared in ITT certificate n° 25070199/Gi (TUM) issued by the Technische Universität München laboratory (Germany)



Adesilex P4



High performance rapid setting full contact cementitious adhesive for ceramic tiles and stone material.

Applications:

Interior and exterior floor bonding of all types of medium and large size ceramic tiles, stone material (as long as moisture stable) in environments subject to heavy traffic on: existing floors (ceramic tiles, natural stone, terrazzo tiles, concrete) as long as solid and perfectly clean, cementitious screeds and underfloor heating systems. Particularly suitable for large size tiles. Installation is sure and without the need of double backbuttering. **Adesilex P4** can be used as a smoothing compound in interiors and exteriors.

Technical data:

Applications: only on floors.

Pot life: over 60 minutes.

Open time: 20 minutes.

Grouting: 4 hours.

Set to light foot traffic: approx. 4 hours.

Ready for use: approx. 24 hours.

Colour: grey.

Application: notched trowel n. 6, 10 or rounded trowel.

EMICODE: EC1 R - extremely low emission level.

Storage: 12 months.

Consumption

4-10 kg/m².

Packaging

25 kg bags.

Adesilex P4 is CE marked, as declared in ITT certificate n° 25070275/Gi (TUM) issued by the Technische Universität München laboratory (Germany)



Planobond



High performance full contact cementitious adhesive with extended open time for ceramic tiles and stone material.

Applications:

Interior and exterior floor bonding of all types of medium and large size ceramic tiles, stone material (as long as moisture stable and not subject to efflorescence) in environments subject to heavy traffic on: existing floors (ceramic tiles, natural stone, terrazzo tiles, concrete) as long as solid and perfectly clean, cementitious screeds and underfloor heating systems. Particularly suitable for large size tiles. Installation is sure even at high temperatures where the use of rapid setting adhesives is difficult, without the need of double backbuttering.

Technical data:

Applications: only on floors.

Pot life: 8 hours.

Open time: 30 minutes.

Grouting: 24 hours.

Set to light foot traffic: approx. 24 hours.

Ready for use: approx. 14 days.

Colour: grey.

Application: notched trowel n. 6, 10 or rounded trowel.

EMICODE: EC1 R - extremely low emission level.

Storage: 12 months.

Consumption

4-10 kg/m²

Packaging

25 kg bags.

Planobond is CE marked, as declared in ITT certificate n° 54680104.101 (SFV) issued by the Säurefließner-Vereinigung e.V. Grossburgwedel laboratory (Germany)



Elastorapid



Highly deformable, high performance, fast setting and hydration two-component cementitious adhesive with extended open time and no vertical slip, for ceramic tiles and stone material.

Applications:

Particularly suitable for rapid installation of ceramic tiles and large size stone material slabs on exteriors (façades, balconies, terraces, stone pavements) and in swimming pools. Suitable for the installation of floors subject to heavy loads (for example industrial floorings, warehouses, supermarkets, etc.) and for bonding ceramic tiles on deformable substrates (plywood, wooden agglomerate as long as sufficiently stable to water, old wooden beam floors, etc.).

The pot life, longer than traditional fast setting adhesive, makes **Elastorapid** adhesive particularly suitable to be used in summer where immediate service is required.

Technical data:

Pot life: 60-75 minutes.

Open time: 30 minutes.

Grouting: 3 hours.

Set to light foot traffic: approx. 2-3 hours.

Ready for use: approx. 24 hours (3 days for basins and swimming pools).

Deformability according to EN 12004: S2 - highly deformable.

Colours: grey and white.

Application: notched trowel n. 4, 5, 6 or 10.

Storage: part A: 12 months; part B: 24 months. Protect from frost.

Consumption

3-8 kg/m².

Packaging

Elastorapid white: 31.25 kg kit
Part A: 25 kg / Part B: 6.25 kg

Elastorapid grey: 31.25 kg kit
Part A: 25 kg / Part B: 6.25 kg.

Elastorapid is CE marked, as declared in ITT certificates n° 25070277/Gi (TUM) and n° 25080024/Gi (TUM) issued by the Technische Universität München laboratory (Germany)



Elastorapid®

The unique

All in ONE

- Cementitious **C**
- High performances **2**
- Fast setting **F**
- No vertical slip **T**
- Extended open time **E**
- Highly deformable **S2**



Granirapid



High performance, deformable, fast setting and hydration two-component cementitious adhesive for ceramic tiles and stone material.

Applications:

Particularly suitable for the installation of stone material that is moderately unstable to moisture and requires a rapid drying of the adhesive. Suitable for bonding floors subject to heavy traffic. Because of its extraordinary bonding and fast-setting characteristics, **Granirapid** is particularly suitable for rapid re-tiling jobs and flooring that has to be in service within very short time (supermarkets, industries, hospitals, airports, swimming pools, etc).

Technical data:

Pot life: 45 minutes.

Open time: 20 minutes.

Grouting: 3 hours

Set to light foot traffic: 3-4 hours

Ready for use: approx. 24 hours

(3 days for basins and swimming pools).

Deformability according to EN 12004:

S1 - deformable.

Colours: grey and white.

Application: notched trowel n. 4, 5, 6 or 10.

EMICODE: EC1 R - extremely low emission level.

Storage: part A: 12 months.

part B: 24 months. Protect from frost.

Consumption

3-8 kg/m².

Packaging

Granirapid white: 28 kg kit;

part A: 22.5 kg bag;

part B: 5.5 kg drum.

Granirapid grey: 30.5 kg kit;

part A: 25 kg bag;

part B: 5.5 kg drum.

Granirapid is CE marked, as declared in ITT certificates n° 85330201.101 (SFV) issued by the Säurefliesner-Vereinigung e.V. Grossburgwedel laboratory (Germany) and n° 25070279/Gi (TUM), n° 25080057/Gi (TUM) and n° 25080060/Gi (TUM) issued by the Technische Universität München laboratory (Germany)





Keraquick



High performance, deformable, rapid setting cementitious adhesive with no vertical slip for ceramic tiles and stone material.

Applications:

Interior and exterior floor and wall bonding of all types of medium and large size ceramic tiles, stone material subject to staining (as long as moisture stable) in environments where rapid use is needed over: existing floors (ceramic tiles, natural stone, terrazzo tiles, concrete) as long as solid and perfectly clean, cementitious screeds and underfloor heating systems, gypsum board, concrete structures and precast concrete panels as long as suitably cured, fibre-cement and wood panels, substrates waterproofed with **Mapelast**, **Mapelast Smart**, **Monolastic**, **Monolastic Ultra**, **Mapegum WPS**, etc.

N.B. Particularly suitable for repairs in areas subject to heavy traffic and when surfaces need to be in service rapidly, such as public premises, pedestrian passages, supermarkets, showrooms; suitable for rapid installations or repairs in swimming pools, industrial plants (breweries, wine-cellars, dairies, etc.), refrigeration units and rapid repair work in bathrooms, showers, kitchens, terraces. By mixing **Keraquick** with **Latex Plus** in complete substitution of water, the deformability improves to meet the requirements of **class S2** (highly deformable adhesive), according to EN 12004.

Technical data:

Pot life: 30 minutes.

Open time: 20 minutes.

Grouting: 2-3 hours

Set to light foot traffic: approx. 2-3 hours.

Ready for use: approx. 24 hours.

(3 days for basins and swimming pools).

Deformability according to EN 12004:

S1 - deformable.

Colours: grey and white.

Application: notched trowel n. 4, 5, 6 or 10.

EMICODE: EC1 - extremely low emission level.

Storage: 12 months.

Consumption

2-5 kg/m².

Packaging

25 kg bags, 4x5 kg boxes.

Keraquick is CE marked, as declared in ITT certificates n° 25070276/Gi (TUM), n° 25080059/Gi (TUM) and n° 25080063/Gi (TUM) issued by the Technische Universität München laboratory (Germany)



Latex Plus



Latex admixture inducing elasticity to be mixed with Keraquick.

Applications:

Latex Plus is an admixture to be mixed with **Keraquick**. It improves deformability to meet the requirements of **class S2** (highly deformable adhesive), according to EN 12004. A highly deformable, high performance, fast setting adhesive with no vertical slip is obtained, suitable for interior and exterior installations of ceramic tiles, stone material, insulation panels, gypsum boards, etc. **Latex Plus** must be used in complete substitution of batching water. Particularly suitable for rapid installation of ceramic tiles and large size stone material slabs (façades, balconies, terraces, etc.), in swimming pools and on deformable substrates.

Technical data:

Latex Plus + Keraquick

Pot life: 30 minutes.

Open time: 20 minutes.

Grouting: 2-3 hours.

Set to light foot traffic: approx. 2-3 hours.

Ready for use: approx. 24 hours

(3 days for basins and swimming pools).

Deformability according to EN 12004:

S2 - highly deformable.

Application: notched trowel n. 4, 5, 6 or 10.

Storage (Latex Plus): 24 months.

Protect from frost.

Consumption

0.7-1.3 kg/m².

Packaging

10 kg drums.

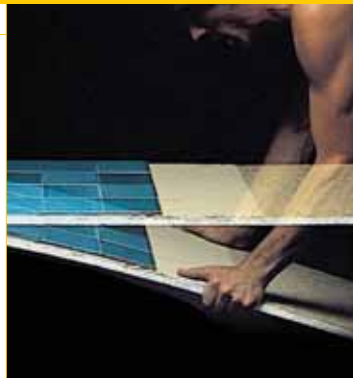
Keraquick + Latex Plus is CE marked, as declared in ITT certificate n° 25080065/Gi (TUM) issued by the Technische Universität München laboratory (Germany).



RHEINRUHR AIRPORT - Düsseldorf - Germany
Products used: ADESILEX P4, MAPETEX SYSTEM,
KERAQUICK+LATEX PLUS, KERACOLOR FF

Synthetic resin-based adhesives

Adesilex P22



Ready-to-use paste adhesive with no vertical slip and extended open time for ceramic tiles.

Applications:

Interior bonding of all types of ceramic tiles (double-fired, single-fired, porcelain tiles, etc.) on all types of conventional substrates but also on concrete structures, precast concrete panels cured at least 1 month, fibre-cement, gypsum plaster and wooden panels as long as sufficiently constrained and for spot bonding of insulation materials. Especially suitable for installing on gypsum surfaces and flexible substrates. Ideal for DIY.

N.B. Do not use in continuous water immersion and on substrates subject to rising damp.

Technical data:

Applications: only on walls.

Open time: 30 minutes.

Grouting: 24 hours.

Ready for use: 7-14 days.

Deformability: highly deformable.

Colour: white.

Application: notched trowel n. 4 or 5.

Storage: 24 months. Protect from frost.

Consumption

1.5-2.5 kg/m².

Packaging

25-12-5 and 12x1 kg drums.

Adesilex P22 is CE marked, as declared in ITT certificate n° 25040268/GI (TUM) issued by the Technische Universität München laboratory (Germany)



Adesilex P25



Ready-to-use paste adhesive with no vertical slip and extended open time for ceramic tiles.

Applications:

Interior bonding and of all types of ceramic tiles (double-fired, single-fired, porcelain tiles, etc.) on all types of conventional substrates but also on concrete structures, precast concrete panels cured at least 1 month, fibre-cement, gypsum plaster, wooden panels, etc. as long as sufficiently constrained and with slight deformations. Especially suitable for installing on gypsum surfaces.

N.B. Do not use in continuous water immersion and on substrates subject to rising damp.

Technical data:

Applications: only on walls.

Open time: 30 minutes.

Grouting: 24 hours.

Ready for use: 7-14 days.

Deformability: highly deformable.

Colour: white.

Application: notched trowel n. 4 or 5.

Storage: 24 months. Protect from frost.

Consumption

1.5-2.5 kg/m².

Packaging

25-12-5 kg drums.

Adesilex P25 is CE marked, as declared in ITT certificate n° LR-04-085 (CSTB) issued by the Centre Scientifique et Technique du Bâtiment, Champs sur Marne laboratory (France)





BIRMINGHAM MAILBOX -
Birmingham - England
Products used:
ADESILEX P25, MAPESIL AC,
ULTRACOLOR

P.I.O.G - Ossendrecht - Netherlands
Products used: MAPEBAND, MAPEGUM WP, ULTRAMASTIC III, KERACOLOR FF



Ultramastic 2



High performance, ready-to-use paste adhesive with no vertical slip for ceramic tiles.

Applications:

Bonding all types of tiles (single-fired, double-fired, porcelain, etc.) on interior floors and exterior walls on all types of traditional substrates:

- concrete structures and pre-fabricated concrete panels cured for at least one month;
- cement-fibre, plasterboard and wood panels, if well anchored.

Also suitable for spot-bonding insulating material.

N.B. Do not use on surfaces subject to continuous immersion, or on substrates subject to rising damp.

Technical data:

Open time: 20 minutes.

Adjustment time: up to 30-35 minutes, according to the absorption of the substrate, the type of tiles used and the surrounding conditions.

Grouting: after 12-24 hours.

Set to light foot traffic: approximately 2 days.

Ready for use: approximately 7 days.

Deformability: highly deformable.

Colour: white.

Application: n° 4, 5 or 6 notched trowel.

Storage: 24 months. Protect from frost.

Consumption

1.5-2.5 kg/m² on walls;

3-4 kg/m² on floors.

Packaging

5, 12 and 16 kg drums.

Ultramastic 2 is CE marked, as declared in ITT certificate n° 25070251/Gi (TUM) issued by the Technische Universität München laboratory (Germany)



Ultramastic III



High performance ready-to-use paste adhesive with no vertical slip and extended open time, for ceramic tiles.

Applications:

Interior floor and wall bonding and exterior wall bonding of all types of ceramic tiles (double-fired, single-fired, porcelain tiles, etc.) on all types of conventional substrates:

- concrete structures, precast concrete panels (cured at least 1 month);
- fibre-cement, gypsum plaster and wooden panels as long as sufficiently constrained.

Furthermore, **Ultramastic III** is used for spot bonding insulation material.

N.B. Do not use in continuous immersion in water and on substrate subject to rising damp.

Technical data:

Open time: 30 minutes.

Workability time: up to 35-40 minutes, depending on the absorption of the tile substrate and environmental conditions.

Grouting: 12-24 hours.

Set to light foot traffic: approx. 2 days.

Ready for use: approx. 7 days.

Deformability: highly deformable.

Colour: white.

Application: notched trowel n. 4, 5 or 6.

Storage: 24 months. Protect from frost.

Consumption

for walls: 1.5-2.5 kg/m²;
for floors: 3-4 kg/m².

Packaging

16-12-5 and 1 kg drums.

Ultramastic III is CE marked, as declared in ITT certificate n° 25040266/Gi (TUM) issued by the Technische Universität München laboratory (Germany)



Ultramastic 5



High performance, ready-to-use paste adhesive with long adjustment time, no vertical slip and extended open time, for ceramic tiles. Ideal for absorbent substrates.

Applications:

Bonding all types of tiles (single-fired, double-fired, porcelain, etc.) on interior floors and exterior walls on all types of traditional substrates:

- concrete structures and pre-fabricated concrete panels cured for at least one month.

Particularly suitable for the installation on particularly absorbent substrates, such as:

- walls made using cellular concrete;
- cement-fibre, plasterboard and wood panels, if well anchored.

Also suitable for spot-bonding insulating material.

N.B. Do not use on surfaces subject to continuous immersion, or on substrates subject to rising damp.

Technical data:

Open time: > 30 minutes.

Adjustment time: up to 50 minutes, according to the absorption of the substrate, the type of tiles used and the surrounding conditions.

Grouting: after 12-24 hours.

Set to light foot traffic: approximately 2 days.

Ready for use: approximately 7 days.

Deformability: highly deformable.

Colour: white.

Application: n° 4, 5 or 6 notched trowel.

Storage: 24 months. Protect from frost.

Consumption

1.5-2.5 kg/m² on walls;
3-4 kg/m² on floors.

Packaging

5 and 16 kg drums.

Ultramastic 5 is CE marked, as declared in ITT certificate n° 25080253/Gi (TUM) issued by the Technische Universität München laboratory (Germany)





Fix & Grout Brick



High performance, ready-to-use adhesive paste, for bonding brick slips and lightweight cementitious and synthetic resin conglomerate decorative elements.

Applications:

Ready-to-use adhesive paste, interior and exterior bonding and grouting of brick slips and both large and small-sized lightweight cementitious and resin conglomerate decorative elements on all types of traditional substrates:

- cured concrete structures and pre-fabricated concrete panels and render;
- cement-fibre, plasterboard and wood panels, if well anchored.

While penetrating into the joints, finish off with a damp brush within 20 minutes. It works as a grout as well.

N.B. Do not use on surfaces subject to continuous immersion, or on substrates subject to rising damp.

Technical data:

Open time: 20 minutes.

Adjustment time: 30-35 minutes.

Grouting: finishing off using a brush dampened with the adhesive to fill in the joints within 20 minutes (depending on the surrounding conditions).

Colours: white, grey or beige.

Application: n° 6, 8, or 10 notched trowel.

Storage: 24 months.

Consumption

1.4-4.2 kg/m².

Packaging

12 and 5 kg drums.



Keralastic / Keralastic T



High performance two-component polyurethane adhesives for ceramic tiles and stone material.

Applications:

Keralastic is an improved reaction resin adhesive (R2). Interior and exterior floor and wall bonding of ceramic tiles, natural stone and agglomerates, mosaic on all types of substrates normally used in building. Particularly suitable for metal, wood, fibre-cement, rubber, PVC and linoleum surfaces. Absolutely necessary for bonding natural stone and agglomerates (all types of marbles, Verde Alpi, slate,...) also subject to movement and size variation due to the absorption of water (class C of dimensional stability according to MAPEI standards). Applied in a continuous layer, they create a perfect waterproof surface on which ceramic tiles can be applied with the same product. Suitable for surfaces subject to accidental contact with water (for example wooden kitchen work surfaces).

Keralastic T (R2T) is the thixotropic version of **Keralastic** and is particularly suitable for vertical applications.

Technical data:

Open time: 50 minutes.

Grouting: 12 hours.

Set to light foot traffic: approx. 12 hours.

Ready for use: approx. 7 days.

Deformability: highly deformable.

Colours: grey and white.

Application: notched trowel n. 4 or 5.

Storage: 24 months.

Consumption

2.5-5 kg/m².

Packaging

5 and 10 kg units

(A:B = 94:6 parts by weight).

Keralastic + Keralastic T are CE marked as declared in **ITT** certificates n° 25040320/Gi (TUM) and n° 25040471/Gi (TUM) respectively, issued by the Technische Universität München laboratory (Germany).



GOLDEN PRINCESS
Monfalcone - Italy
Products used: KERALASTIC,
KERALASTIC T

FAAM-IBF - Monte Sant'Angelo - Italy
Products used: TOPCEM PRONTO, PLANICRETE, KERAPOXY,
KERAPOXY P, MAPEBAND, MAPEFLEX PU30

Kerapoxy Adhesive



Two-component, epoxy adhesive with no vertical slip for ceramic tiles and stone material.

Applications:

- Anti-acid bonding of all types and shapes of ceramic tiles, on all types of substrates used in the building industry.
- Bonding tiles in fibreglass swimming pools.
- Bonding marble doorsteps and window sills.
- Bonding rigid strakes and special ceramic items.

Technical data:

Pot life of mix: 45 minutes.
Open time: 60 minutes.
Set to light foot traffic: approx. 10-12 hours.
Ready for use: 2 days.
Colour: grey.
Application: n° 4, 5, 6 or 10 notched trowel.
Storage: 24 months.

Consumption

1.5 kg/m² per mm of thickness.

Packaging

10 kg units.

Kerapoxy Adhesive is CE marked as declared in ITT certificate n° 25070399/Gi (TUM) issued by the Technische Universität München laboratory (Germany).



Kerapoxy



Two-component acid-resistant epoxy adhesive. Can also be used as a grout.

Applications:

Kerapoxy is an improved reaction resin and slip resistant adhesive (R2T) suitable for fast setting acid-resistant bonding of ceramic tiles, stone material, fibre-cement, concrete and other building material on substrates normally used in building.

Technical data:

Pot life: 45 minutes.
Open time: 30 minutes.
Set to light foot traffic: approx. 24 hours.
Ready for use: 4 days.
After 4 days, surfaces can undergo chemical aggression.
Colours: 26.
Application: notched trowel n. 4, 5, 6 or 10.
Storage: 24 months.

Consumption

as an adhesive: 2-4 kg/m².

Packaging

10 and 5 kg units and 12x2 kg boxes.

Kerapoxy is CE marked, as declared in ITT certificate n° 25040322/Gi (TUM) issued by the Technische Universität München laboratory (Germany)



KERAPOXY RANGE	ADHESIVE	GROUT
KERAPOXY	X	X
ERAPOXY P		X
KERAPOXY SP		X
KERAPOXY IEG		X
KERAPOXY ADHESIVE	X	
KERAPOXY DESIGN	X	X
KERAPOXY CQ		X

Grouts and elastic sealants



Ultracolor Plus



Fast setting and drying, high performance, anti-efflorescence grout, polymer modified, for joints from 2 to 20 mm. Water-repellent with DropEffect® and antimould with BioBlock® technology.

Applications:

Interior and exterior floor and wall grouting of all types of ceramic tiles (double-fired, single-fired, klinker, porcelain tiles, etc.), terracotta, stone material (natural stone, marble, granite, agglomerates, etc.), glass and marble mosaics. Ensures complete uniformity of colour, does not produce surface efflorescence, dries quickly and therefore floor and wall coverings are ready for use quickly.

BioBlock® technology applied to this product blocks various types of mould from forming and proliferating on the surface of the grout in humid conditions. Also, the use of special hydrophobic additives (**DropEffect®** technology) gives grouting mortars high water-repellent properties, making them less prone to dirtiness and with excellent durability.

Ideal for grouting exterior façades, balconies, terraces, swimming pools, bathrooms and kitchens. Especially suitable for grouting floors of supermarkets, highway service stations, restaurants, airports and public service grounds.

Technical data:

Pot life: 20-25 minutes.

Waiting time before finishing: 15-30 minutes.

Set to light foot traffic: approx. 3 hours.

Ready for use: after 24 hours (48 hours for basins and swimming pools).

Colours: 26.

Application: MAPEI rubber trowel or squeegee.

Finishing: Mapei sponge or Scotch-Brite® pad.

EMICODE: EC1 - extremely low emission level.

Storage: 12 months (23 kg bags), 24 months (5 kg and 1 kg boxes).

Consumption

according to the size of the joint.

Packaging

23 kg bags, 4x5 kg and 9x1 kg boxes according to the colour.



With



**Mold... stop.
Don't overlook it.**



No mold. No mildew. No worries.



Keracolor SF



Super fine, high performance cementitious grout for joints up to 4 mm.

Applications:

Easy to apply and finish, smooth and compact, particularly fine, interior and exterior, floor and wall grouting of all types of ceramic tiles (double-fired, single-fired, klinker, porcelain tiles, etc.), terracotta, prepolished stone material (natural stone, marble, granite, agglomerates, etc.), glass and prepolished marble mosaics. Suitable for grouting joints of reduced thickness in swimming pools, bathrooms, kitchens and particularly smooth and polished floor surfaces.

Keracolor SF mixed with **Fugolastic** improves its final characteristics, reaching suitable strength even under particularly difficult conditions (also for natural stone to be polished when in use).

Technical data:

Pot life: approx. 2 hours.

Waiting time before finishing: 10-20 minutes.

Set to light foot traffic: approx. 24 hours.

Ready for use: 7 days.

Colour: white.

Application: MAPEI rubber trowel or squeegee.

Finishing: MAPEI sponge or Scotch-Brite® pad.

EMICODE: EC1 R - extremely low emission level.

Storage: 12 months (22 kg bags), 24 months (5 kg boxes).

Consumption

depends on size of joint (see table on page 52).

Packaging

22 kg bags and 4x5 kg boxes, depending on the colour.



Keracolor FF



High performance cementitious grout, polymer modified, water-repellent with DropEffect®, for joints up to 6 mm.

Applications:

Easy to apply and finish, smooth and compact, interior and exterior, floor and wall grouting of all types of ceramic tiles (double-fired, single-fired, klinker, porcelain tiles, etc.), terracotta, stone material (natural stone, marble, granite, agglomerates, etc.), glass and marble mosaics. Suitable for grouting joints in swimming pools, bathrooms, kitchens and particularly smooth and polished floor surfaces. The use of special hydrophobic additives (**DropEffect®** Technology) gives grouting mortars high water-repellent properties, making them less prone to dirtiness and with excellent durability.

Keracolor FF mixed with **Fugolastic** improves its final characteristics, reaching suitable strength even under particularly difficult conditions.

Technical data:

Pot life: approx. 2 hours.

Waiting time before finishing: 10-20 minutes.

Set to light foot traffic: approx. 24 hours.

Ready for use: 7-10 days.

Colours: 18.

Application: MAPEI rubber trowel or squeegee.

Finishing: MAPEI sponge or Scotch-Brite® pad.

EMICODE: EC1 R - extremely low emission level.

Storage: 12 months (25-22 kg bags), 24 months (5 kg boxes).

Consumption

depends on size of joint (see table on page 52).

Packaging

25-22 kg bags and 4x5 kg boxes, depending on the colour.



Keracolor GG



High performance cementitious grout, polymer modified, for joints from 4 to 15 mm.

Applications:

Interior and exterior, floor and wall grouting of all types of ceramic tiles (double-fired, single-fired, klinker, porcelain tiles, etc.), terracotta, face-brick and stone material (natural stone, marble, granite, agglomerates, etc.). Suitable for grouting joints on exterior façades, balconies, terraces, swimming pools, bathrooms, kitchens and rustic finished floors.

Keracolor GG mixed with **Fugolastic** improves its final characteristics, reaching suitable strength even under particularly difficult conditions.

Technical data:

Pot life: approx. 2 hours.

Waiting time before finishing: 10-20 minutes.

Set to light foot traffic: approx. 24 hours.

Ready for use: 7-10 days.

Colours: 18.

Application: MAPEI rubber trowel or squeegee.

Finishing: MAPEI sponge or Scotch-Brite® pad.

EMICODE: EC1 R - extremely low emission level.

Storage: 12 months (25-22 kg bags), 24 months (5 kg boxes).

Consumption

depends on size of joint (see table on page 52).

Packaging

25 kg bags and 4x5 kg boxes, depending on the colour.



Fugolastic



Liquid polymeric additive for Keracolor FF and GG.

Applications:

Fugolastic is used as a substitute for water to mix **Keracolor FF** and **GG** cementitious grouts, to improve the grout compactness, abrasion resistance and reduce porosity and water absorption. Especially suitable for grouting floors subject to heavy traffic, swimming pools, terraces, balconies and façades.

N.B. Do not use **Fugolastic** with **Keracolor FF** or **GG** mix for grouting terracotta floors or porous or rough surfaces. When grouting polished porcelain tiles, a preliminary test is recommended to verify its washability.

Technical data:

Fugolastic + Keracolor:

Pot life: approx. 2 hours.

Waiting time before finishing: 10-20 minutes.

Set to light foot traffic: approx. 24 hours.

Ready for use: 7-10 days.

Application: MAPEI rubber trowel or squeegee.

Finishing: MAPEI sponge or Scotch-Brite® pad.

Storage Fugolastic: 24 months. Protect from frost.

Consumption

depends on size of joint (see table on page 52).

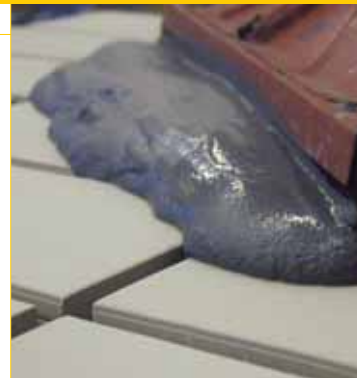
Packaging

25-10-5 kg drums and 12x1 kg packs.



PORTA VITTORIA TRAIN STATION - Milan - Italy
Products used: MAPELASTIC, KERASET, ADESILEX P9, MAXIFUGA, ADESILEX LP, ADESILEX G19

Maxifuga



High performance cementitious mortar, for grouting joints of 4 to 20 mm in stone or ceramic industrial floors which are subject to considerable loads.

Applications:

Internal and external grouting of floors in all types of ceramic tiles (single-fired, klinker, porcelain, etc.), terracotta and stone (natural stone, porphyry, granite, agglomerates, etc.).

Thanks to its high mechanical strength, **Maxifuga** is particularly recommended for grouting floors which are subject to considerable loads (supermarkets, factories, railway stations, etc.). It is ideal for grouting oversized ceramic tiles in both industrial floors and external floors made from porphyry or stone slabs.

Technical data:

Pot life of mix: approx. 2 hours.

Waiting time before laying: 10-20 minutes.

Step-on time: approx. 2 hours.

Waiting time before putting into service: 7-10 days.

Colours available: dark grey.

Application: MAPEI rubber trowel or rake.

Finish: MAPEI sponge or Scotch-Brite® tamper.

Storage: 12 months.

Consumption

according to the size of the tiles and width of the joints (see table on page 52).

Packaging

25 kg bags.



Kerapoxy



Two-component, acid-resistant epoxy mortar for grouting joints wider than 3mm, available in 26 different colours. May also be used as an adhesive.

Applications:

- Internal and external acid-resistant and absorbent grouting of ceramic and stone floors and walls, wherever total hygiene and resistance to most aggressive chemical substances is required.
- Grouting of floors and walls in the foodstuffs industry (dairies, cheese factories, abattoirs, breweries, wineries, preserves factories, etc.), shops and environments where a high level of hygiene is required (ice-cream parlours, butcheries, etc.).
- Grouting of industrial floors and walls (galvanizing plants, tanneries, accumulator rooms, paper works, etc.), where high mechanical strength and a high resistance to attack by acids is required.
- Grouting of swimming pools, especially recommended for pools containing spa or sea water.
- Grouting of basins containing chemically aggressive water (depuration plants, etc.).
- Grouting of tiles on laboratory benches, kitchen worktops, etc.
- Anti-acid bonding of tiles.

Technical data:

Pot life of mix: 45 minutes.

Set to light foot traffic: approx. 24 hours.

Ready for use: 3 days. After 4 days, the surfaces may also be exposed to chemical attack.

Colours: 26.

Application: MAPEI rubber trowel.

Finish: MAPEI sponge or Scotch Brite® tamper.

Storage: 24 months.

Consumption

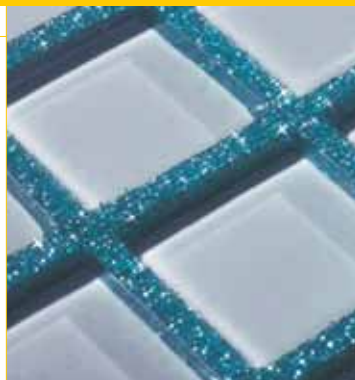
according to the size of the joint (see table on page 52).

Packaging

10 and 5 kg kits and 12x2 kg boxes.



Kerapoxy Design



Two-component, acid-resistant epoxy mortar for tile joints (available in 15 different colours), ideal for glass mosaic. May also be used as an adhesive.

Applications:

- Decorative grouting of artistic indoor and outdoor tiles and stone material, and especially glass mosaic. Also suitable for acid-resistant bonding on all common building substrates. The pearlescent finish of the product heightens the final aesthetic effect of the finishing materials. **Kerapoxy Design** may also be mixed with **MapeGlitter** to create particular special effects.
- Grouting sizeable floors and finishing materials in industrial environments (galvanizing plants, tanneries, battery rooms, paper mills, etc.), where high mechanical strength and resistance to acids are required.
- Grouting floors and finishing materials in the foodstuffs industry (dairies, cheese factories, abattoirs, breweries, wine cellars, preserves factories, etc.), shops and environments where a high level of cleanliness is required (ice-cream parlours, butcher's, etc.).
- Swimming pools, including spa baths.

Technical data:

Pot life of mix: 45 minutes.

Open time (as adhesive): 30 minutes.

Adjustment time (as adhesive): 60 minutes.

Set to light foot traffic: approximately after 24 hours.

Ready for use: after 4 days, the surfaces may also be exposed to chemical attack.

Colours: 8: 700 translucent (neutral), 702 silver grey, 710 ice white, 716 pink, 720 pearl grey, 728 dark grey, 729 sahara yellow, 730 turquoise, 731 dark brown, 740 blue, 744 mandarin orange, 750 red, 760 gold, 770 anthracite, 799 white.

Application: MAPEI rubber trowel.

Finish: MAPEI sponge.

Storage: 24 months.

Consumption

according to the size of the joint.
For mosaic (size 2x2 cm) approximately 1.4 kg/m².

Packaging

3 kg units.



MapeGlitter



Metalized coloured glitter.

Applications:

The addition of up to a maximum of 10% in weight of **MapeGlitter** to **Kerapoxy Design** forms a shiny, metalized grouting mortar, which is particularly suitable for grouting metallic tiles and glass mosaic and tiles.

Technical data:

Maximum dosage: 10% in weight of the **Kerapoxy Design**.

Colours: silver and light gold.

A further 22 colours are available upon request.

Packaging

boxes of 10x100 g sachets.





Kerapoxy CQ



Two-component, acid-resistant epoxy mortar which is particularly easy to apply and clean, for grouting tile joints wider than 2 mm.

Applications:

Interior and exterior acid-resistant grouting on ceramic tiles, stone material and glass mosaic. Particularly suitable for grouting large surface areas, such as:

- tiled floors and coatings in industrial applications where there is a high risk of acid damage (industrial kitchens, abattoirs, dairies, etc.);
- swimming pools filled with rainwater or spa water.

Technical data:

Pot life of mix: 45 minutes.

Set to light foot traffic: approximately after 24 hours.

Ready for use: after 4 days, the surfaces may also be exposed to chemical attack.

Colours: 113 cement grey, 114 anthracite, 132 beige, 282 bardiglio grey, 283 sea blue, 290 cream.

Application: MAPEI rubber trowel.

Finish: MAPEI sponge.

Storage: 24 months.

Consumption

according to the size of the joint.

Packaging

10 kg units.



Kerapoxy P



Two-component, acid-resistant epoxy mortar which is particularly easy to apply and clean, for grouting tile joints wider than 3 mm.

Applications:

- Grouting large floors and walls in industrial environments (galvanizing plants, tanneries, accumulator rooms, paper mills, etc.), where high mechanical strength and resistance to acids are required.

- Grouting floors and walls in the foodstuffs industry (dairies, cheese factories, abattoirs, breweries, wine cellars, preserves factories, etc.), shops and environments where a high level of cleanliness is required (ice-cream parlours, butcher's, etc.).

Technical data:

Pot life of mix: 45 minutes.

Set to light foot traffic: approx. 24 hours.

Ready for use: 4 days. After 4 days, the surfaces may be exposed to chemical products.

Colours available: 113, 130.

Other colours available for more than 300 kg upon request.

Application: MAPEI rubber trowel.

Finishing: MAPEI sponge and Scotch Brite® pad (or with a cleaning machine with a single rotating head with a special disc in abrasive felt, such as Scotch Brite®, and a rubber rake).

Storage: 24 months.

Consumption

depends on the size of the joint (see table on page 52).

Packaging

10 kg units.



Kerapoxy IEG



Two-component epoxy mortar with an extremely high resistance to chemicals, for grouting tile joints with a minimum width of 3 mm.

Applications:

- Anti-acid grouting with an extremely high resistance to chemicals on ceramic floors.
- Its use is especially recommended for grouting ceramic floors in ham curers, especially in the areas where trimming, boning and curing are carried out, where the grout comes into contact with animal fats for long periods and is subject to frequent washing with high-pressure jets of hot water.
- Another typical area where it is used is for grouting floors in cured meat factories, especially where cooking takes place (mortadella, etc.) where the grout is subject to the combined action of oleic acid and high temperatures.
- Grouting ceramic floors in oil mills.
- Grouting ceramic floors in factories which produce pickled foods.

Technical data:

Pot life of mix: 45 minutes.

Set to light foot traffic: approx. 24 hours.

Ready for use: 4 days. After 4 days, the surfaces may be exposed to chemical products.

Colours: 113 and 130.

Application: MAPEI rubber trowel.

Finishing: MAPEI sponge and Scotch Brite® pad (or with a cleaning machine with a single rotating head with a special disc in abrasive felt, such as Scotch Brite®, and a rubber rake).

Storage: 24 months.

Consumption

according to the size of the joint (see table on page 52).

Packaging

10 kg units.



Kerapoxy SP



Three component, high chemical resistance epoxy mortar for grouting tile joints wider than 5 mm.

Applications:

- Anti-acid grouting with an extremely high resistance to chemicals on ceramic floors.
- Its use is especially recommended for grouting ceramic floors in ham curers, especially in the areas where trimming, boning and curing are carried out, where the grout comes into contact with animal fats for long periods and is subject to frequent washing with high-pressure jets of hot water.
- Another typical area where it is used is for grouting floors in cured meat factories, especially where cooking takes place (mortadella, etc.) where the grout is subject to the combined action of oleic acid and high temperatures.
- Grouting ceramic floors in oil mills.
- Grouting ceramic floors in factories which produce pickled foods.

Technical data:

Pot life of mix: 20 minutes.

Set to light foot traffic: approx. 6 hours.

Ready for use: 24 hours. After 24 hours, the surfaces may be exposed to chemical products.

Colours: neutral beige.

Application: 12 cm trowel.

Finishing: damp rag with ethanol and single-head brush.

Storage: 24 months.

Consumption

depends on the size of the joint (see table on page 48).

Packaging

10 kg units.



Flexcolor



Ready-to-use, polymeric, DropEffect® water-repellent and BioBlock® anti-mould paste for grouting tile joints from 2 to 10 mm in ceramic tiles.

Applications:

Paste for grouting tile joints on interior walls and exterior floors, for all types of ceramic tiles and mosaics. Particularly suitable for grouting tile joints in ceramic tiles on flexible substrates.

Technical data:

Waiting time before finishing: from 15-20 minutes, depending on the environmental conditions and the absorption of the tiles.

Set to light foot traffic: 48 hours.

Ready for use: 7 days.

Colour: 100 white, 111 silver grey and 132 beige.

Application: MAPEI rubber trowel.

Finishing coat: Scotch-Brite® pad and MAPEI sponge.

Storage: 12 months.

Consumption

according to the size of the joint.

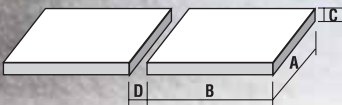
Packaging

5 and 10 kg drums.



Tile size (mm)	Joint (mm)	Ultracolor Plus kg/m ²	Keracolor SF kg/m ²	Keracolor FF kg/m ²	Keracolor GG kg/m ²	Maxifuga kg/m ²	Kerapoxy Design Kerapoxy P Kerapoxy CQ kg/m ²	Kerapoxy IEG kg/m ²	Kerapoxy SP kg/m ²	Flexcolor
20x20x4	2	1.3	1.2	1.2			1.3			1.3
50x50x4	2	0.5	0.5	0.5			0.5			0.5
100x100x6	3	0.6	0.6	0.6	0.6		0.6			0.6
75x150x6	3	0.6	0.6	0.6	0.6		0.6			0.6
100x200x6	3	0.5	0.4	0.4	0.5		0.5			0.5
150x150x6	3	0.4	0.4	0.4	0.4		0.4			0.4
200x200x8	3	0.4	0.4	0.4	0.4		0.4			0.4
100x200x6	5	0.8		0.7	0.8		0.8	0.6		0.8
200x200x8	5	0.7		0.6	0.7		0.7	0.6		0.7
250x330x8	8	0.8			0.8		0.8	0.6	1.0	0.8
300x300x8	8	0.7			0.7		0.7	0.6	1.0	0.7
120x240x12	8	2.0			2.0	2.0	2.0	1.7	2.7	2.0
400x400x10	10	0.8			0.8	0.9	0.8	0.7	1.1	0.8
300x600x10	10	0.8			0.8	0.9	0.8	0.7	1.1	0.8
450x450x12	10	0.9			0.9	0.9	0.9	0.8	1.2	0.9
500x500x12	10	0.8			0.8	0.9	0.8	0.7	1.1	0.8
600x600x12	10	0.7			0.7	0.7	0.7	0.6	0.9	0.7
120x240x18	10	3.6			3.6	3.8	3.6	3.2	5.0	3.6
150x300x20	15	4.8			4.8	5.1	4.8	4.2	6.6	
300x300x20	15	3.2			3.2	3.4	3.2	2.8	4.4	
120x240x20	20	8.0				8.5	8.0	7.0	11	
250x250x20	20	5.2				5.5	5.2	4.5	7.1	

ALL MAPEI CEMENTITIOUS AND EPOXY GROUTS FOR CERAMIC TILES AND STONE MATERIALS ARE IN COMPLIANCE WITH EN 13888 STANDARDS



GROUT CALCULATION:

$$\frac{A+B}{A \times B} \times C \times D \times K = \text{kg/m}^2$$

A = tile length
B = tile width
C = tile thickness
D = joint width
K = function of the mix density

K values:	
ULTRACOLOR PLUS	1.6
KERACOLOR SF	1.5
KERACOLOR FF	1.5
KERACOLOR GG	1.6
MAXIFUGA	1.7
KERAPOXY	1.6
KERAPOXY P	1.6
KERAPOXY CQ	1.6
KERAPOXY IEG	1.4
KERAPOXY SP	2.2
KERAPOXY DESIGN	1.6
FLEXCOLOR	1.6

Mapei Coloured Grouts	0	100	110	111	112	113	114	120	130	131	132	140	141	142	143	144	145	150	160	161	162	170	171	172	180	181	182	282	283	290	999
THE CEMENTITIOUS GROUTS																															
Ultracolor Plus																															
Keracolor SF																															
Keracolor FF																															
Keracolor GG																															
THE POLYMERIC GROUTS																															
Flexcolor																															
THE EPOXY GROUTS																															
Kerapoxy																															
Kerapoxy P																															
Kerapoxy IEG																															
Kerapoxy CQ																															
THE SEALANTS																															
Mapefill AC																															

	700	702	710	716	720	728	729	730	731	740	744	750	760	770	799	LIGHT GOLD	SILVER
Kerapoxy Design																	
MapeGlitter																	

Kerapoxy Design colours can be mixed each other and with MapeGlitter creating an infinite range of colours.

Due to printing processes involved, the colours should be taken as merely indicative of the shades of the actual product.

Mapesil AC



Solvent-free, acetic-cross-linking mildew-resistant silicone sealant, available in 26 colour and transparent.

Applications:

Interior, exterior, ceramic tile floor and wall sealing of expansion joints of $\pm 25\%$ expansion of the initial size in swimming pools, bathrooms and showers.

Mapesil AC can also be used for forming a perfectly elastic gasket between different elements in constructions, mechanical engineering, ship-building, automobile manufacturing, etc.

N.B. Mapesil AC adheres perfectly to glass, ceramics and anodized aluminium. If treated beforehand with **Primer FD**, adhesion is good also on concrete, wood, metal, painted surfaces, plastics, rubber etc.

Mapesil AC is classified F-25-LM in compliance with ISO 11600 standards.

Technical data:

Formation of surface film: 10 minutes.

Shrinkage during cross-linking: 3.5%.

Speed of cross-linking: 4 mm a day; 10 mm in 7 days.

Ultimate elongation: 800%.

Movements under working conditions: $\pm 25\%$.

Shore-A-Hardness: 20.

Colours: 26 and transparent.

Application: sealant gun.

Storage: 24 months.

Consumption

depends on the size of the joint.

Packaging

310 ml cartridges.



Mapesil LM



Solvent-free, odourless neutral cross-linking silicone sealant for natural stone and ceramic tiles on façades.

Applications:

Flexible sealing of interior and exterior expansion joints of ceramic wall tiling as well as glass, mirrors, metal, PVC, polycarbonate, etc. Especially suitable for flexible sealing of exterior façades of acid sensitive limestone. In fact, unlike acetic-based silicon sealants, it does not leave stains by the joints. Unsuitable for continuous water immersion.

Mapesil LM is classified F-25-LM in compliance with ISO 11600 standards.

Technical data:

Formation of surface film: from 10 to 20 minutes.

Speed of cross-linking:

4 mm a day; 10 mm in 7 days.

Ultimate elongation: 600%.

Movements under working conditions: $\pm 25\%$.

Shore-A-Hardness: 20.

Colours: grey and white.

Application: sealant gun.

Storage: 12 months.

Consumption

depends on the size of the joint.

Packaging

310 ml cartridges.



CATHEDRAL - Milan - Italy
Products used: Mapelastic, Mapesil LM

Mapeflex PU45



One component, thixotropic, rapid-hardening polyurethane sealant and adhesive with a high modulus of elasticity for joints subject to movements up to 20%.

Applications:
Mapeflex PU45 is a one component, thixotropic, rapid-hardening and flexible polyurethane compound, that is particularly easy to apply on both horizontal and vertical surfaces using a special extrusion gun or by trowel.
Mapeflex PU45 is used for sealing expansion and distribution joints in ceramics, stone material and concrete walls and floors subject to movement up to 20%, in internal and external car-parks, supermarkets, shopping centres and warehouses. It may also be used as an adhesive for bonding various materials together on a wide range of substrates.
Mapeflex PU45 offers a perfect bond for stone and brickwork, metallic elements, such as flashing and guttering, wooden and plastic baseboards, cable beads and decorative gypsum elements.
Mapeflex PU45 bonds well to concrete and natural stone substrates, even if they have not been primed. However, we recommend the use of **Primer AS** if the surface is weak, or has a slightly powdery surface, if the joints are subject to high mechanical stress or in frequent, prolonged contact with liquids. Good adhesion is obtained when **Mapeflex PU45** is applied to surfaces which are not absorbent, such as iron, steel, aluminium, copper, ceramic, glass, zinc-plated or painted sheet. However, to further improve bonding, we recommend that under certain conditions, the substrate material is treated with **Primer M**. The product is ready to use and is available in recyclable aluminium tubes, equipped with a special extrusion gun which makes the product particularly easy to use.
Mapeflex PU45 is classified F - 20HM in compliance with ISO 11600 standards.

Technical data:
Elongation at breakage: 500%.
Movement when in service: ± 20%.
Set to traffic: depending on the depth of the joint.
Shore A hardness: 40.
Colour: grey, black, white.
Application: by extrusion.
Storage: 12 months.

Consumption
– used as sealant: according to the size of the joint;
– used as adhesive: according to the method used (formation of a bead or spot-application).

Packaging
boxes of 20 pcs. (600 ml soft cartridges).



Mapeflex PU50 SL



One-component, fluid, polyurethane sealant with a low modulus of elasticity, for flooring joints subject to movements of up to 25%

Applications:
Mapeflex PU50 SL is a one component, flexible polyurethane-based sealant which is easy to apply, for use on horizontal surfaces or surfaces with a maximum slope of 2%.
Mapeflex PU50 SL is used for sealing expansion and distribution joints in internal and external horizontal surfaces subject to movements of up to 25% of their original size under continuous use.
Mapeflex PU50 SL bonds well to concrete and natural stone substrates, even if they have not previously been primed. However, we recommend the use of **Primer AS** if the surface is not solid enough, if it has a slightly powdery surface or if the joints are subject to high mechanical stress or frequent, prolonged contact with liquids. If **Mapeflex PU50 SL** is applied on surfaces which are not absorbent, such as iron, steel, aluminium, copper, ceramic, glass or zinc-plated or painted sheet, adhesion may be improved if the material is treated with **Primer M**.
The product is ready to use and is available in recyclable aluminium tubes, equipped with a special extrusion gun which makes the product particularly easy to use.
Mapeflex PU50 SL is classified F - 25LM in compliance with ISO 11600 standards.

Technical data:
Elongation at breakage: > 1000%.
Movement when in service: ± 25%.
Set to light foot traffic: 24 hours.
Ready for use: according to the depth of the joint.
Shore A hardness: 18.
Colour: grey.
Application: by extrusion.
Storage: 12 months.

Consumption
depends on the size of the joint.
Consult the table below for consumption of the product.

Packaging
20 pcs. bags (600 ml soft-cartridges).



CONSUMPTION TABLE		
Size of the joint in mm	Metres in length	
5 x 5	24	
10 x 10	6	
15 x 7.5	5.3	
20 x 10	3	
25 x 12.5	1.9	
30 x 15	1.3	

Primer M



One-component, solvent-free primer for non-absorbent surfaces.

Applications:

Primer M is a one-component, solvent-free polyurethane primer used to improve the bonding of polyurethane sealants, such as **Mapeflex PU45**, **Mapeflex PU50 SL** and **Mapeflex PU55 SL** on non-absorbent surfaces, such as metals (iron, steel, aluminium, copper, zinc-plated sheets), ceramics, clinker, glass and painted sheets.

Technical data:

Consistency: liquid.

Colour: brown.

Waiting time for extruding the sealant:

approx. 40 minutes.

Application: by brush.

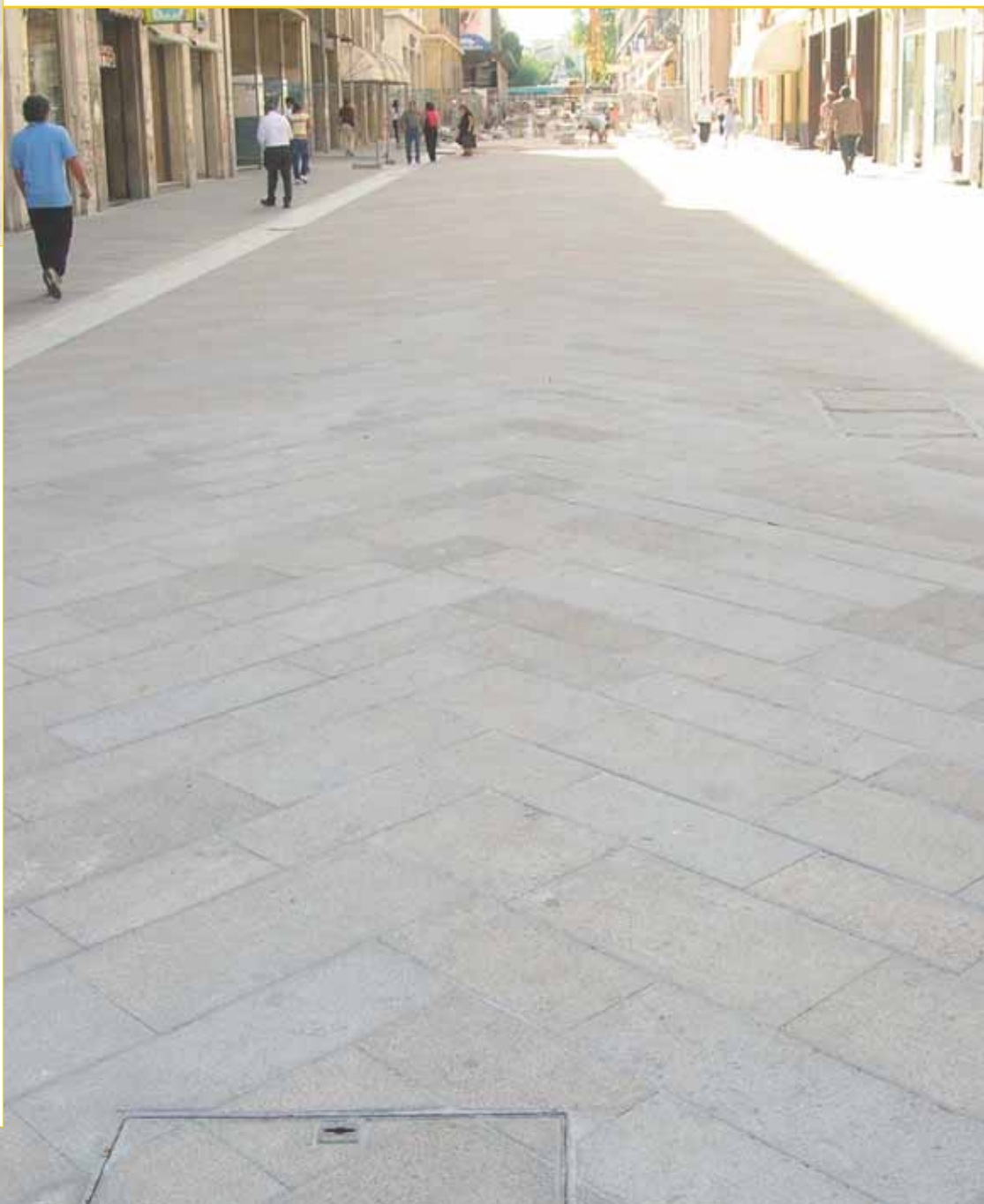
Storage: 12 months.

Consumption

50-60 g/m² (10-12 g/m for joints with a depth of 1 cm).

Packaging

250 g cans.



Mapeflex PU20



Two-component self-levelling, polyurethane sealant for floor joints with maximum 10% expansion of the initial size.

Applications:

Flexible sealing of joints (expansion, separation, control joints) of interior and exterior ceramic, concrete, wood, etc. floors subject to heavy traffic such as in warehouses, garages, supermarkets, etc. **Mapeflex PU20** is classified F-7.5 in compliance with ISO 11600 standards.

Technical data:

Pot life: approx. 50 minutes.

Ultimate elongation: 100%.

Movements under working conditions: $\pm 10\%$.

Set to light foot traffic: 24 hours.

Ready for use: 7 days.

Shore-A-Hardness: 40.

Colour: grey.

Application: by pouring.

Storage: 24 months.

Consumption

depends on the size of the joint.

Packaging

10 and 5 kg (A+B) drums.



Mapeflex PU21



Two-component self-levelling, polyurethane sealant for floor joints with maximum 5% expansion of the initial size.

Applications:

Flexible sealing of joints of interior and exterior ceramic floors subject to heavy traffic.

Technical data:

Pot life: 40-50 minutes.

Ultimate elongation: 180%.

Movements under working conditions: $\pm 5\%$.

Set to light foot traffic: 24-36 hours.

Ready for use: 3 days.

Shore-A-Hardness: 65.

Colour: grey.

Application: by pouring.

Storage: 24 months.

Consumption

depends on the size of the joint.

Packaging

10 and 5 kg (A+B) drums.



Mapeflex PU30



Two-component thixotropic polyurethane sealant for joints with maximum 10% expansion of the initial size.

Applications:

Mapeflex PU30 is used for sealing flexible joints in concrete walls. More in general, for all vertical structures, both interior and exterior, where a thixotropic product with high resistance to chemical agents and waterproof is required. Sealing joints in ceramic tile floors in areas subject to heavy traffic such as supermarkets, industrial buildings with fork lift truck traffic, sidewalks, pedestrian crossings, arcades, squares, etc.

Mapeflex PU30 is used both on vertical and horizontal surfaces.

Mapeflex PU30 is classified F-7.5-P in compliance with ISO 11600 standards.

Technical data:

Pot life: approx. 40-50 minutes.

Ultimate elongation: 100%.

Movements under working conditions: $\pm 10\%$.

Set to light foot traffic: 24 hours.

Ready for use: 7 days.

Shore-A-Hardness: 40.

Colour: grey.

Application: flat trowel.

Storage: 24 months.

Consumption

depends on the size of the joint.

Packaging

10 and 5 kg (A+B) drums.



Mapefoam



Closed cell polyethylene foam cord for the correct sizing of movement joints. Is available in skeins where the length is proportionate to the diameter.

Applications:

Placing at the base of the joints (expansion, control, structural, etc.). Lightly positioned, it allows the joint to be filled correctly with a flexible product to the designed thickness, ensuring a properly formed seal with good adhesion to the sides of the joint.

Technical data:

Density: 40 kg/m³.

Resistance to tensile stress: 30 N/mm².

Water absorption: none.

Colour: grey.

Temperature when in use: from -40°C to +80°C.

Packaging

Ø 6 mm boxes 2500 m

Ø 10 mm " 550 m

Ø 15 mm " 550 m

Ø 20 mm " 350 m

Ø 25 mm " 200 m

Ø 30 mm " 160 m

Drainage products



Mapedrain Mortar



Pre-blended mono-granular, pozzolanic drainage mortar for screeds and for laying traditional paved floors.

Applications:

- Creation of mortar drainage beds with a minimum thickness of 2 cm (4 cm in the case of vehicular traffic), for laying all types of traditional external paved floors (slabs and blocks in porphyry) subject to low or medium stresses.

N.B. The special grain size and composition of **Mapedrain Mortar** allows for highly permeable laying surfaces and screeds with no capillary rising damp to be created, thus reducing the risk of deterioration of the floor due to freeze/thaw cycles or the formation of surface efflorescence.

Technical data:

Mixing ratio: 1 25 kg bag of **Mapedrain Mortar** with 1.8-2 litres of water.

Pot life of mix: 3-4 hours.

Set to light foot traffic: 24 hours.

Ready for use: 7 days for light traffic, 28 days for heavy traffic.

Grouting:

– traditional laying: after 24 hours.

Storage: 12 months.

Consumption

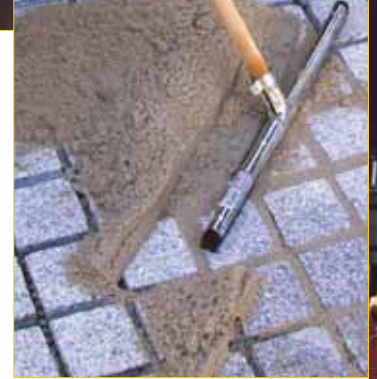
14 kg/m² per cm of thickness.

Packaging

25 kg bags.



Mapedrain 1K Grout



One component, ready-to-use polybutadiene-based drainage mortar for grouting paved floors with joints at least 5 mm wide subject to light stresses.

Applications:

Drainage grouting of paved surfaces (slabs and blocks in porphyry, stone material, cement-based composites and ceramic) subject to light traffic, such as:

- steps, pavements and terraces laid on the ground for domestic use;
- courtyards and pedestrian entrances;
- residential drives and pavements subject to pedestrian traffic.

N.B. joints grouted using **Mapedrain 1K Grout** are characterised by good mechanical strength and excellent drainage properties. They are also particularly resistant to high-pressure hydro-cleaning operations and de-icing salt. Thanks to the product's high permeability, the joints are resistant to freezing and bad weather, are not washed away over the years and are not subject to the formation of weeds or moss.

Technical data:

Pot life of mix: 45 minutes.

Set to light foot traffic: 24 hours.

Ready for use: 7 days.

Colour: grey, sand, anthracite.

Application: MAPEI rubber trowel or rake.

Cleaning: broom.

Storage: 12 months.

Consumption

according to the width of the joints and the size of the slabs (see table).

Packaging

25 kg drums.



Mapedrain 3K Grout



Three-component, epoxy drainage mortar for grouting paved floors with joints at least 5 mm wide subject to medium-intensity stresses.

Applications:

Drainage grouting of paved surfaces (slabs and blocks in porphyry, stone material, cement-based composites and ceramic) subject to low traffic levels, such as:

- steps, pavements and terraces laid on the ground;
- courtyards and entrances for pedestrians and/or occasional vehicles;
- public pedestrian zones, including those exposed to bad weather.

N.B. joints grouted using **Mapedrain 3K Grout** are characterised by good mechanical strength and excellent drainage properties. They are also particularly resistant to cleaning operations using road sweepers and cleaners and de-icing salt. Thanks to the product's high permeability, the joints are resistant to freezing and bad weather, are not washed away over the years and are not subject to the formation of weeds or moss.

Technical data:

Pot life of mix: 40 minutes.

Set to light foot traffic: 24 hours.

Ready for use: 3 days.

Colour: grey, sand, anthracite.

Application: MAPEI rubber trowel or rake.

Cleaning: broom.

Shelf life: 24 months.

Consumption

according to the width of the joints and the size of the slabs (see table).

Packaging

27.4 kg units.



Mapedrain Binder



Solvent-free, one component polyurethane binder for mixing drainage mortar and grout for paved floors.

Applications:

- Creation of mortar drainage beds with a minimum thickness of 2 cm, for laying all types of traditional external paved floors (slabs and blocks in porphyry, cement-based composites and dimensionally-stable stone not subject to variations in colour).
- Mixing drainage grout for tile joints (minimum width 10 mm) for external floors subject to pedestrian traffic (terraces, drives, courtyards and pedestrian zones).

Technical data:

Mixing ratio:

1.75 kg of **Mapedrain Binder** every 50 kg of quartz sand and mono-granular gravel.

Pot life of mix: 30-50 minutes.

Set to light foot traffic: 24 hours.

Ready for use: 7 days for light traffic.

Storage: 12 months.

Consumption

– for bedding mortars: 0.6 kg/m² for cm of thickness;

– for grouts: 0.2-0.5 kg/m² depending on joint size.

Packaging

5 and 10 kg drums, 0.75 kg tins.



Products with very low water absorption and high mechanical strength

SYSTEMS FOR LAYING PORPHYRY AND INTERLOCKING STONE

Keracolor PPN



Pozzolanic, fast-setting mortar with very low water absorption and high mechanical strength for grouting paved floors with joints from 5 to 30 mm subject to heavy stresses and intense traffic.

Applications:

Grouting with very low water absorption and high mechanical strength of paved surfaces (slabs and blocks in porphyry, stone material, cement-based composites and ceramic) subject to intense traffic and heavy stresses, such as:

- courtyards in factories subject to very heavy loads;
- public roads and squares exposed to bad weather, and subject to heavy stresses from traffic (buses, lorries, crossroads, traffic lights, etc.);
- public pedestrian zones;
- car-parks and entrances to garages.

N.B. joints grouted using **Keracolor PPN** are characterised by high wear resistance and high mechanical strength. They are also particularly resistant to cleaning operations using road sweepers and cleaners and de-icing salt. Thanks to the product's special composition and high permeability, the joints are resistant to freezing and bad weather, are not washed away over the years and are less subject to the formation of surface efflorescence.

Technical data:

Pot life of mix: 20 minutes.

Set to light foot traffic: 1 hour.

Ready for use: 3 days for medium/light-weight traffic and 7 days for heavy traffic.

Colour: grey.

Application: MAPEI rubber trowel or rake.

Cleaning: MAPEI sponge or Scotch-Brite® (or with a cleaning machine with a single rotating disc with a special disc in abrasive felt, such as Scotch-Brite®), high-pressure water jets may be used as an alternative.

Storage: 12 months.

Consumption

according to the width of the joints and the size of the slabs (see table).

Packaging

25 kg bags.



Complementary products

Mapedrain Easy Clean



Alkaline treatment for paved floors with a porous surface to simplify cleaning off process during grouting operations.

Applications:

Surface treatment of absorbent paved floors and stone material before grouting with **Mapedrain 1K Grout**, **Mapedrain 3K Grout** or **Keracolor PPN**.

Surfaces treated with **Mapedrain EasyClean** are easy to clean during grouting operations and the final appearance of the surface is not altered.

Technical data:

Waiting time before grouting: 2 hours.

Colour: transparent.

Application: with a roller, a flat brush or by spray.

Storage: 24 months in its original packaging.

Consumption

approx. 0.05-0.2 l/m² according to the absorption of the substrate.

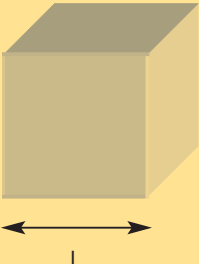
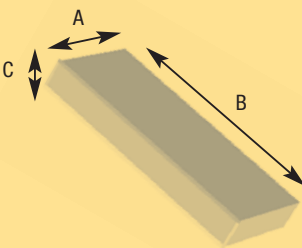
Yield: 5-15 m² per litre.

Packaging

5, 10 and 25 litre drums;
1 litre bottles (boxes of 12);
120 litre drums.



APPROX. CONSUMPTIONS OF MAPEADRAIN RANGE GROUTS

		MAPEADRAIN 1K GROUT			MAPEADRAIN 3K GROUT			KERACOLOR PPN		
	Average grout width (mm)	5	10	15	5	10	15	5	10	15
BLOCKS	Average L (mm)									
	40÷60	11.5	22.5	3.4	9	18.5	27.5	12	23	35
	60÷80	11.5	23	34.5	9.5	19	28	12	24	36.5
	80÷100	11	21.5	32	9	17.5	26	11	22	33
	100÷120	12	23.5	35	9.5	19	28.5	12	24	36
	120÷140	11	22.5	33	9	18	27	11.5	23	34.5
	140÷180	11	22	33	9	18	27	11.5	23	34
SLABS	AxBxC (mm)									
	150x150x20	2	4.5	6.5	2	3.5	5.5	2.5	4.5	7
	150x150x40	4.5	8.5	13	3.5	7	10.5	4.5	9	13.5
	150x300x20	2	3.5	5	1.5	3	4	2	3.5	5
	150x300x40	3.5	6.5	10	3	5.5	8	3.5	7	10
	150x300x60	5	10	14.5	4	8	12	5	10	15
	300x300x30	2	3.5	5	1.5	3	4	2	3.5	5
	300x300x40	2	4.5	6.5	2	3.5	5.5	2.5	4.5	7
	300x600x60	2.5	5	7.5	2	4	6	2.5	5	7.5
	300x600x80	3.5	6.5	10	3	5.5	8	3.5	7	10
	400x400x40	2	3.5	5	1.5	3	4	2	3.5	5
	400x400x60	2.5	5	7.5	2	4	6	2.5	5	7.5
	400x400x80	3.5	6.5	10	3	5.5	8	3.5	7	10

The consumption values contained in this table are for reference purposes only.

They may vary considerably according to the irregular size and shape of the blocks and slabs and the technique used to lay them. To calculate the exact amount required, carry out grouting tests directly on site.

Additives and conductive primers

ADDITIVES AND CONDUCTIVE PRIMERS

Mapelectric CP1



Solvent-free, conductive additive to be added to primers, smoothing compounds, adhesives and grouting mortars for laying conductive and static-dissipative ceramic floors.

Applications:

For laying conductive and static-dissipative floors in EPA areas (areas protected against electrostatic charges) according to Standards CEI EN 61340-5-1, such as:

- operating theatres, intensive care and tomography units, NMR wards, analysis laboratories, etc.;
- electronics and similar industries: production of conductors, semi-conductors, circuit boards, computers and relative assembly lines, telephone exchanges, sorting offices, data-elaboration centres, etc.;
- chemical and pharmaceuticals industries: manufacture of chemical products in the presence of inflammable or explosive powders and/or solvents, production of ammunition and explosives, etc.;
- printing houses where solvents are employed, accumulator charging units, sterile rooms, raised floors on all normal, absorbent substrates which are not sensitive to humidity used in construction.

Technical data:

Consistency: fluid paste.

Colour: black.

Density: 1.05 kg/dm³.

pH: no.

Flammability: no.

Consumption

please refer to the Technical data Sheet.

Packaging

2.5 kg cans.



Primer G Conductive



Solvent-free, dark-coloured, synthetic resin-based conductive primer in water dispersion.

Applications:

Treatment of cementitious, anhydrite and gypsum surfaces before laying MAPEI conductive adhesives for laying conductive ceramic floors and dressings. The surfaces to be treated must be clean, absorbent and perfectly dry.

Technical data:

Consistency: liquid.

Colour: black.

Recommended application temperature

range: from +5°C to +40°C.

Drying time: at least 2 hours.

Electrical resistance: 50.000 ohm.

Storage: 24 months. Protect from frost.

Application: by brush.

Consumption

100-150 g/m².

Packaging

10 kg drums.



Mapei products	PKG	Amount of Mapelectric CP1 to be added	Amount of water necessary for the mix	Electrical resistance EN 13415 (MOhm)
KERAFLEX	25 kg	2.5 kg	4.5 l	0.007
KERACOLOR GG	25 kg	1,25 kg	4,5 l	0,063
PRIMER G	10 kg	2,5 kg	–	0,005

Complementary products



Keraneset



Acid-based cleaner for ceramic tiling. Particularly suitable for removing efflorescent salt and the final cleaning of terracotta. As a powder (concentrated) or liquid (15% water solution).

Applications:

Cleaning traces of cement, lime, efflorescence, residues of cementitious adhesives and grouts from the surfaces of ceramic tiles and mosaics on floors and walls. Cleaning terracotta before the final surface treatment. Cleaning stonework except marble and other calcareous stones.
N.B. Before application make sure the surfaces to be cleaned are acid-resistant.

Technical data:

pH of the liquid: 1.13.

Waiting time before rinsing:

5 minutes depending on the concentration of the dirt; repeat application until stains are removed. Rinse thoroughly and repeatedly with plenty of water once finished.

Storage: 24 months.

Consumption

depending on need.

Packaging

- concentrated powder: 4x5 and 18x1 kg packs;
- ready-to-use liquid: 25-10-5 kg drums; 12x1 kg packs;
- bottles with nebulizer: 0.75 kg.



Keraseal



Transparent protective sealer for porous tiles (Cotto Toscano, etc.).

Applications:

Treatment of terracotta: reduces porosity to make it suitable to receive final wax. Final treatment instead of wax when a bright and lasting stain-resistant, non absorbent easily cleaned surface is required.

Technical data:

Consistency: very fluid liquid.

Set to light foot traffic: 12 hours.

Ready for use: 3 days.

Application: dampened cloth.

Storage: 24 months.

Consumption

100-200 g/m² per coat.

Packaging

10 kg drums and 18x1 kg packs.



Mapequarz



Dry quartz aggregate, for the preparation of grouting mortar and, when applied by sprinkling, for cleaning grouted joints.

Applications:

When **Mapequarz** is mixed with cement and water, it forms mortar which is suitable for grouting joints between ceramic and stone tiles.

Mapequarz is particularly recommended for cleaning fresh tile joints, using a single-head rotating brush.

Where to use: one of the ingredients for preparing grouting mortar; for sprinkling on the surface of the floor.

Consumption

- as an aggregate; ratio **Mapequarz**: cement from 1:1 to 2:1;
- for sprinkling: from 2 to 5 kg/m².

Fuga Fresca



Fuga Fresca is a polymer paint for bringing back the colour of cementitious grouted joints in floors and decorated surfaces.

Applications:

Fuga Fresca may also be used to eliminate irregularities in the colour of joints caused, for example, by incorrect application of the mortar, or to eliminate unsightly stains caused during use.

Fuga Fresca helps to obtain joints with a uniform colour, which absorb less water and which are easier to clean.

Technical data:

Colours: 26.

Application: by brush or directly from the canister.

Consumption

according to the size of the tiles and joints.

Packaging

1 kg drums and 160 g dispenser.



Mapetex System



Completely removable installation system for ceramic tiles and stone material. Can also be used as an anti-fracture and removable membrane.

Applications:

Mapetex System consists of **Mapetex**, a non-woven fabric and **Mapetex Strip**, an adhesive strip. **Mapetex** can be used with **Mapetex Strip**, as a removable base for the installation of new floor and wall coverings on chipboard, wood, PVC, linoleum, ceramic tiles and stone material substrates and on cementitious screeds and underfloor heating installations. It can also be used to rapidly replace tiles on exhibition panels, without damaging them. **Mapetex** bonded with **Keraquick + Latex Plus**, **Elastorapid** or **Kerabond/Kerabond T + Isolastic** can also be used as an anti-fracture and removable membrane for bonding floors on uncured cementitious screeds and the installation of ceramic tiles and stone material (also diagonally) without the need of respecting fraction joints.

Technical data:

- **Mapetex**
Width: 200 cm, 100 cm.
- **Mapetex Strip**
Width: 50 mm, 410 mm.

Mapetex:

- 2 m x 50 m rolls;
- 1 m x 50 m rolls.

Mapetex Strip:

- 50 mm x 25 m rolls;
- 410 mm x 10 m rolls;
- 410 mm x 5 m rolls.



MADONNA DELLA GUARDIA SANCTUARY - Tortona - Italy
Products used: PRIMER G, ULTRAPLAN, ULTRAPLAN MAXI,
MAPETEX SYSTEM, KERAQUICK+LATEX PLUS,
MARMOCOLOR, MAPESIL AC



Tools

Trowels for levelling compounds



American.
Extralong.

Trowels for adhesives



Notched metal trowel n. 3.
Notched metal trowel n. 4.
Notched metal trowel n. 5.
Notched trowel with wooden handle n. 5.
Notched trowel with wooden handle n. 6.
Notched trowel with wooden handle n. 10.
Trowel with wooden handle for **Kerafloor**.
Extralong notched metal trowel n. 5.
Extralong notched metal trowel n. 6.
Extralong notched metal trowel n. 10.
Metal trowel for **Adesilex P4**.

Gun for soft cartridges



Gun for 600 ml soft-cartridges.

Gun for sealants

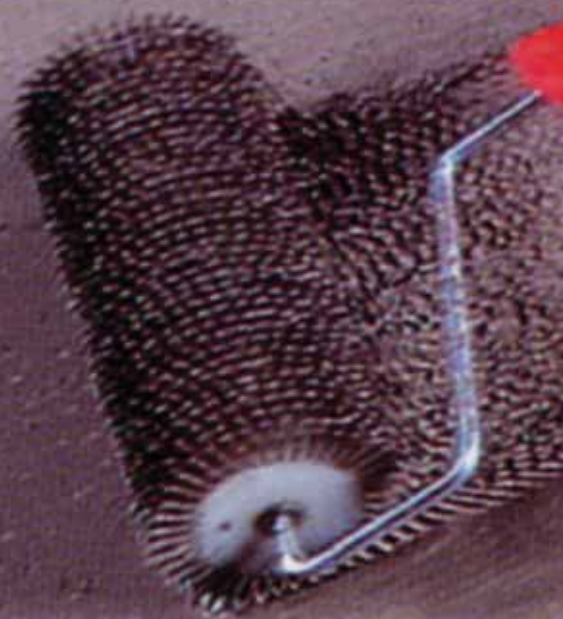


Gun for 310 ml cartridges.

Grouting tools



Rubber float for grouting joints.
Special sponge for cleaning grouts.



Carbide hygrometer



Chemical instrument for measuring the humidity in the substrates. The water reacts with the calcium carbide in the hygrometer and forms acetylene that increases the pressure. The water content is determined by the pressure on the manometer. The hygrometer comes in a plastic suitcase containing:

- a steel container with a stopper and a manometer;
- 20 glass phials containing calcium carbide;
- 2 aluminium marbles;
- 1 scale with support, scale pan and 20 g and 10 g weights;
- 1 syringe;
- 1 spoon and 1 steel plate.

Boxes with 20 glass phials containing calcium carbide are available.

Electronic hygrometer



Electronic instrument that rapidly indicates the % of humidity contained in cement based screeds (A scale), **Mapecem** based screeds (B scale), and anhydrite based screeds (C scale).

The hygrometer is powered by 9 V batteries and comes in a case containing:

- a cable with a uniaxial connector and connecting terminals with the electrodes that are driven into the screed;
- two steel nails that are used as electrodes;
- an instruction leaflet.

Spiked roller



Plastic roller with handle (23 cm width, 8 cm diameter). To be used to improve the application of levelling compounds in thicknesses from 2 to 15 mm, to eliminate air bubbles and to improve the surface appearance of the MAPEI self-levelling compounds

Mapei solutions for the construction of swimming pools

Mapei can boast over ten years of experience throughout the world both in the construction of new pools and in the restoration of existing ones. In fact, since the '50s on, Mapei products have been used for almost all the Olympic Game pools and for important international sports meetings, with large use made in structures for receiving and hosting athletes and visitors.

Mapei is therefore able to offer in this sector a complete range of products: products for the construction and waterproofing of reinforced concrete structures; special adhesives for the installation of ceramic tiles and glass mosaic; grouts for joints and sealants for expansion joints.

All specifications for the construction of new long-lasting pools and restoration of existing ones follow hereunder:

1) CONCRETE PREPARATION

In order to obtain a watertight concrete basin it is necessary that the cement mixture has the following characteristics:

- *Rck* 37 N/mm²
- *Consistency class*: S4/S5 (compliant with EN 206.1)
- *Waterproofing compliant with EN 206.1*
- *Durability*: in compliance with EN 206.1 (exposure class XD2*)
- *Concrete cover thickness*: no less than 3 cm

The concrete must be admixed with superplasticisers belonging to **Mapecfluid** line (from MAPEI) or with acrylic-based hyperplasticisers belonging to **Dynamon** line (from MAPEI) in compliance with EN 934-2 standard; the type must be selected on the basis of temperature and job-site conditions.

- *Wet curing*: for at least 7 days

* For pools containing seawater the XS2 exposure class requires a minimum *Rck* of 45 N/mm² for concrete.

2) TREATMENT OF CONSTRUCTION JOINTS BETWEEN FOUNDATION AND WALLS

Waterproof the construction joints between concrete foundation and walls by applying **Idrostop** (bentonite-free hydrophilic rubber profile) fixed by bonding with **Adesilex T Super** or by nailing. For concrete walls with thickness greater than 30 cm two parallel strips are required.

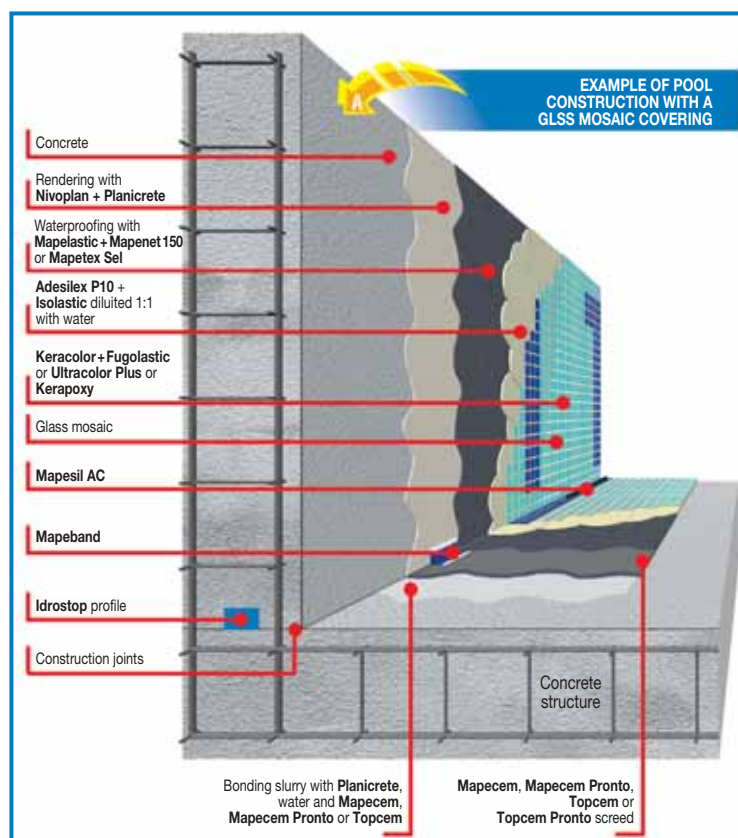
The material must have the following characteristics:

- *Dimensions*: 20x10 mm or 20x15 mm
- *Water swelling*: 45% (after 24 hours)
70% (after 2 days)
120% (after 7 days)

3) LEVELLING THE WALLS

Remove from the concrete surface any cement laitance, form release agent residues, powder or grease that may hinder the adhesion. Level the surfaces by applying **Nivoplan** mixed with **Planicrete**, diluted 1:4 with water. The mortar must have the following performance characteristics:

- *Workability time*: 2-3 hours
- *Applicable thickness per layer*: 2-30 mm
- *Flexural strength*: 3.5 N/mm²
- *Compressive strength*: 6.0 N/mm²



4) LEVELLING THE FLOOR

Remove from the surface cement laitance, loose particles and every traces of powder or grease. Therefore level the substrate by applying screeds made with **Topcem**, **Topcem Pronto**, **Mapecem**, **Mapecem Pronto** binders.

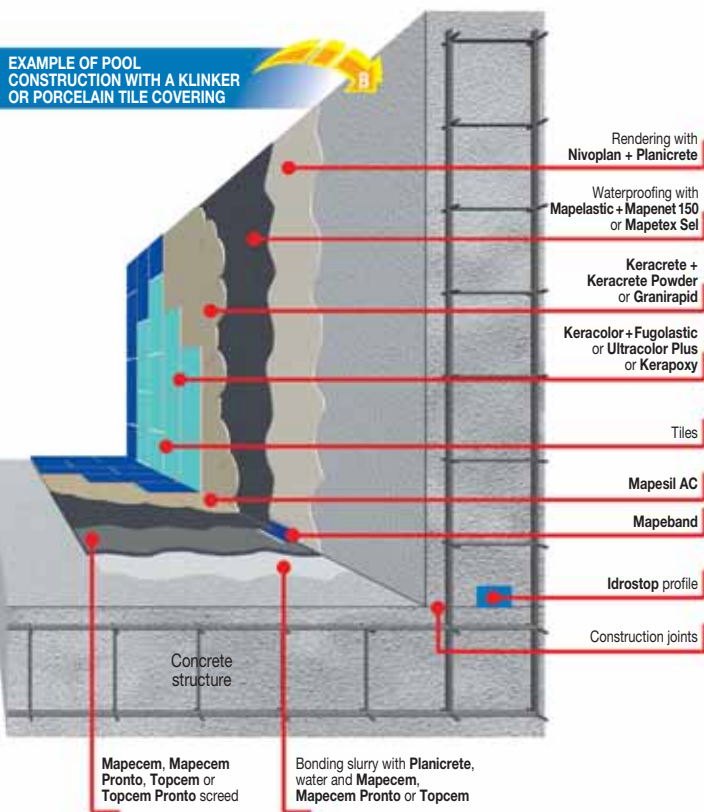
In any case, a perfect adhesion requires a preventive application of a bonding slurry obtained by mixing **Planicrete** with the same binder used to prepare the mortar. The most suitable product type for the screed must be chosen depending on the time in which the pool must be ready for use, considering that the screed is ready for tile application after 24 hours if **Topcem** or **Topcem Pronto** are used, after 3-4 hours if **Mapecem** or **Mapecem Pronto** are used.

The screed must have the following performance characteristics:

- *Compressive strength*: 25 N/mm²
- *Waterproofing or installation of ceramic tiles*: after only 24 hours



EXAMPLE OF POOL CONSTRUCTION WITH A KLINKER OR PORCELAIN TILE COVERING



5) WATERPROOFING (OPTIONAL)

Generally, this operation is not necessary if the concrete is prepared, cast and cured correctly according to the above mentioned instructions. In any case, if this operation is necessary, it must be done by applying with a trowel two coats of **Mapelastix** reinforced with **Mapenet 150** resistant to alkali, with mesh size of 4.5 x 5 mm, or **Mapetex Sel** up to a final thickness of at least 2 mm. All the corners must be waterproofed with **Mapeband**.

The material must have the following performances:

- Adhesion to concrete: 0.8 N/mm²
- Waterproofing: up to 3 atm for positive pressure and 1 atm for negative pressure (DIN 1048)
- Resistance to freeze/thaw cycles: greater than 300 cycles (UNI 7087)
- Ultimate elongation (DIN 53504) after 28 days at +23°C and 50% R.H.: 18%

6a) TILE INSTALLATION

Klinker or porcelain tile installation must be carried out with **Keracrete** adhesive mixed with **Keracrete Powder** belonging to class C2T in compliance with EN 12004. The adhesive must have the following performances at a temperature of +23°C:

- Open time: 10-15'
- Adjustability time: 30'
- Joint grouting: after 24 hours
- Basin ready for use: after 3 weeks

6b) GLASS MOSAIC INSTALLATION

The installation of glass mosaic must be done with **Adesilex P10**, an adhesive belonging to C2TE class, mixed with **Isolastic** (elastic latex) diluted 1:1 with water. The adhesive must have the following performances at a temperature of +23°C:

- Open time: 30'
- Adjustability time: 60'
- Joint grouting: after 24 hours
- Basin ready for use: after 3 weeks

7) RAPID INSTALLATION

The rapid installation of klinker or porcelain tiles, or glass mosaic must be done with **Granirapid** or **Elastorapid**, adhesives belonging to C2F/S1 class (in compliance with EN 12004).

The adhesive must have the following performances at a temperature of +23°C:

- Open time: ~20'
- Adjustability time: 45'
- Joint grouting: after 3-4 hours
- Basin ready for use: 3 days

8) JOINT GROUTING

Fill joints by applying **Keracolor** mixed with **Fugolastic** or **Ultracolor Plus** (ready-mix cementitious grouts) belonging to CG2 class, in compliance with EN 13888. Furthermore **Ultracolor Plus** allows to fill the basin 48 hours after its application. As an alternative, if the basin contains seawater or thermal water, the grouting has to be carried out with **Kerapoxy**, **Kerapoxy Design** and **Kerapoxy CQ** (acid resistant epoxy grout), belonging to RG class (in compliance with EN 13888).

9) EXPANSION JOINT SEALING

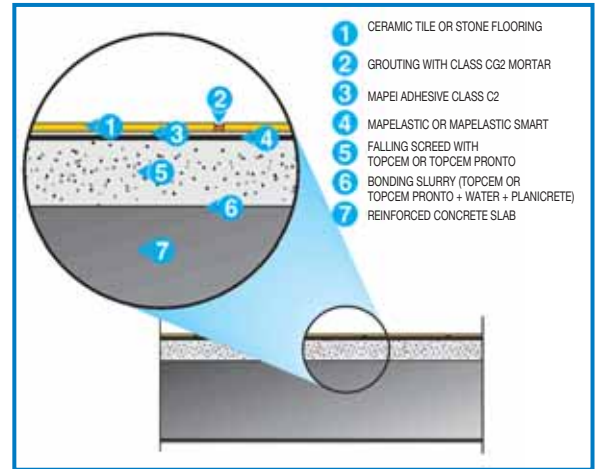
Expansion joint sealing must be done in all the corners of the coverings and in the changes of slope of the floor. They must be positioned every 3x3 m, and must be done with **Mapesil AC** (one-component acetic-based silicone sealant), after applying **Primer FD** in the edges. The sealant must have the same colour of the grout and must have the following performances:

- Ultimate elongation: 800% (DIN 53504 S3A)
- Hardness: 20 (Shore A - DIN 53 505)
- Maximum movement in service: 20%
- Time required for skin formation: 10 minutes
- Cross linking speed: 4 mm in 1 day, 10 mm in 7 days

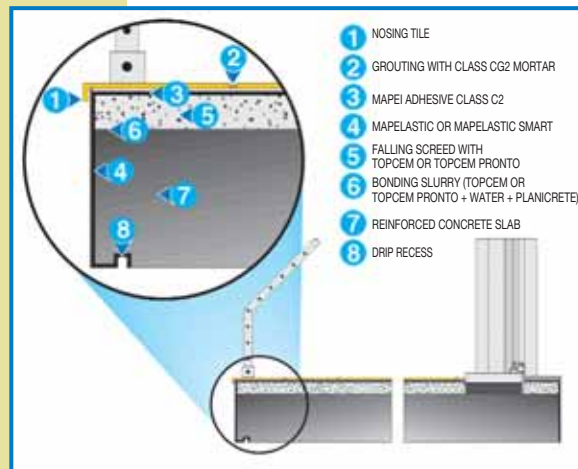
Mapei solutions for waterproofing terraces and balconies

70

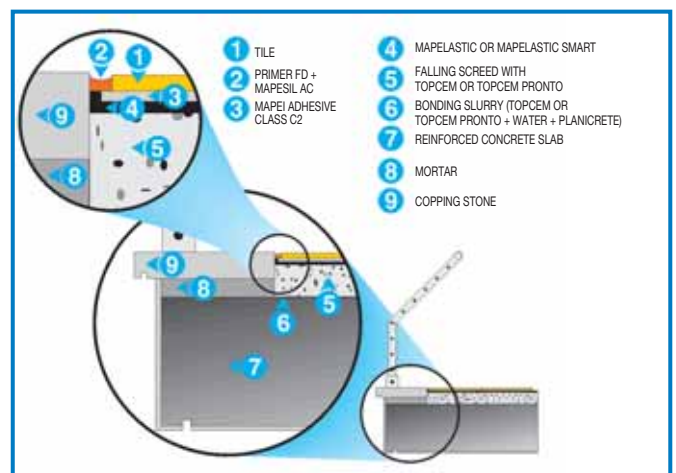
Waterproofing terraces and balconies is necessary in order to avoid the risk of water seepages, to prevent the deterioration of construction materials, improve comfort in living spaces and lower maintenance costs. Mapei developed a waterproofing system for terraces and balconies in new and existing building that even under severe conditions guarantees complete watertightness, excellent deformability (essential for structures subjected to vibrations and/or structural movement) and durability. The solution guaranteed by Mapei for the waterproofing of terraces and balconies is the use of **Mapelastic** or **Mapelastic Smart**, two-component flexible cementitious mortars, that thanks to their high quality polymer content, have excellent adhesion on concrete and existing terrazzo and ceramic tiles. Once hardened, it creates a flexible watertight membrane against the chemical aggression of deicing salts, sulphates, chlorides and carbon dioxide. The following pictures show some construction details that could become critical points if waterproofing is carried out incorrectly.



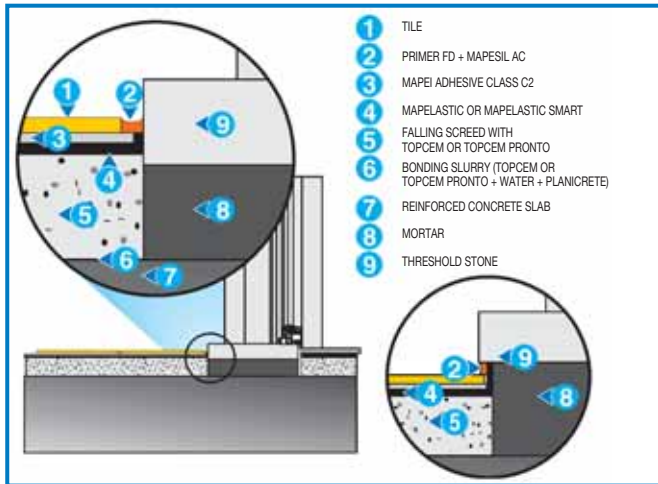
Detail: waterproofing directly on screed with slope



Detail: waterproofing of the front of a balcony

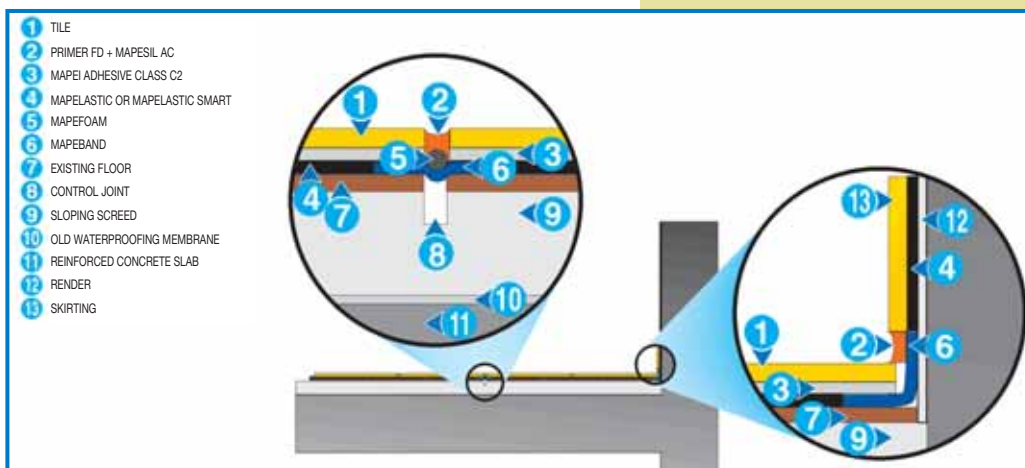
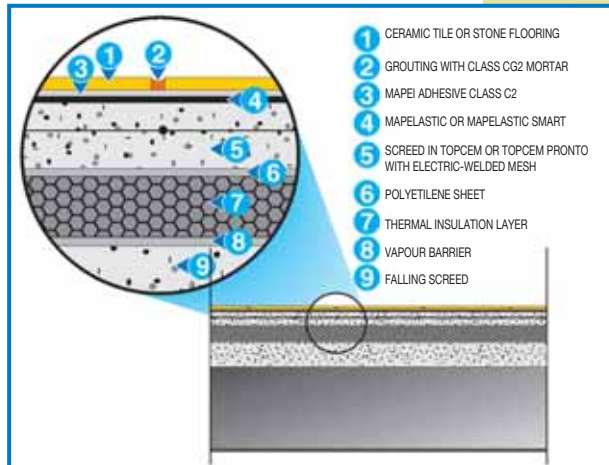


Detail: joint between perimeter and tile on balcony



Detail: joint between threshold stone and tile

Detail: waterproofing of a balcony with thermal insulation layer



Detail: waterproofing of a control joint

Mapei solutions for the installation of screeds for laying floors

72

The service life and functionality of a floor covering, whether the material used is ceramic, stone, fabric, resilient or wood, is highly dependant on the physical and elastic-mechanical characteristics of the substrate on which it is laid.

These properties must be defined according to its final use and, therefore, according to the loads which act upon it, the environmental aggression conditions, the type of floor, the deformability of the underlying layers and the deflection of the concrete slab. This technical notebook aims at supplying useful guidelines regarding the techniques to be used and on the products which MAPEI offers for the installation of screeds which are durable over a long period of time.

A screed is a constructive element which, in general, is between 4 and 8 cm thick. It is made from mortars blended with cementitious binders or with an anhydrite base.

According to whether it is laid so that it adheres to a load-bearing substrate (for example a reinforced concrete slab), or it is laid onto an isolation layer (for example a vapour barrier) or onto a layer of thermal and/or acoustic insulation, it is known as "integral", "isolating" or "floating", respectively. When the latter type also includes embedded heating pipes, they are defined as "heating".

The screed forms a support which is suitable for any type of floor. Be it in ceramic, stone, wood or a resilient material. Also, it must guarantee that the laying operation is carried out in the time required and that its durability is not compromised when operating under various conditions (internal or external use, domestic, commercial or industrial use, etc).

The durability of a floor covering is influenced, therefore, by the characteristics of the substrate, which are tightly bound to those of the product used for the screed (special binders, pre-blended mortar or traditional mortar prepared on site), and also by the way it is prepared, how it is laid, its compactness and the curing of the mix.

To sum up, therefore, the choice of which product to use for the screed must take into consideration its final use, the particular site conditions (internal use, external use, thickness, etc), the type of floor to be laid and the time to wait before laying and before putting the floor covering into service.

TYPES OF SCREEDS

Screeds may be divided into the following categories:

- Isolating (Figs. 1 and 2)
- Floating (Fig. 3)
- Integral (Fig. 4)
- Heating (Fig. 5)

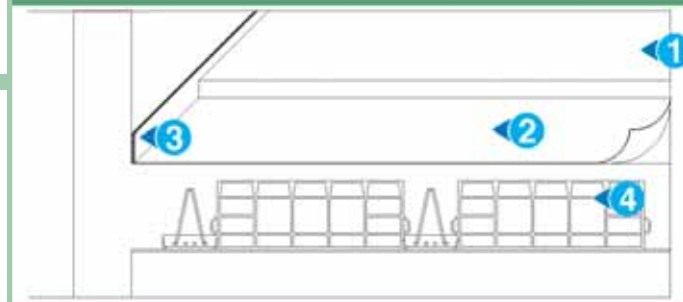


TOPCEM PRONTO and **MAPECEM PRONTO** pre-blended mortars for screeds conform to standard **EN 13813** and are **CE** marked.

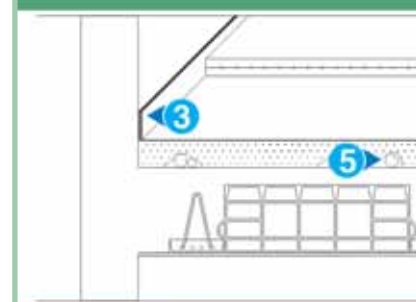
A Statement of Compliance, to certify the performance characteristics of these mortars as required for the **CE** brand, is available upon request.



ISOLATING SCREED



ISOLATING SCREED



FLOATING SCREED ON AN INSULATION LAYER

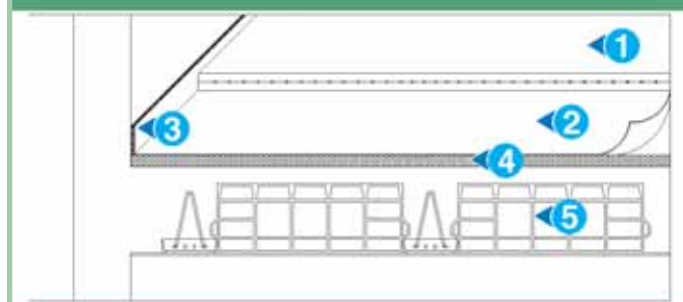


Table 1 - Minimum thickness of floating screed according to the deformability class

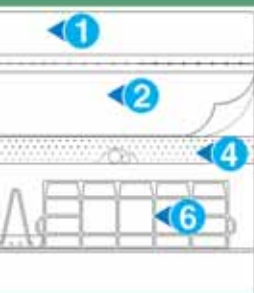
INSULATION Deformability class

- | | |
|------|---|
| I: | Thickness < 3 mm |
| I: | Flattening* < 0.5 mm and thickness > 3 mm |
| II: | Flattening > 0.5 mm and < 3 mm included |
| III: | Flattening > 3 mm and < 12 mm |

- 1 SCREED 3.5 cm THICK
- 2 POLYTHENE SHEET
- 3 DEFORMABLE MATERIAL
- 4 CONCRETE SLAB

Fig. 1

SCREED OVER LIGHTWEIGHT LAYER



- 1 SCREED 3.5 cm THICK WITH ELECTRIC-WELDED MESH
- 2 POLYTHENE SHEET
- 3 DEFORMABLE MATERIAL
- 4 LAYER OF LIGHTWEIGHT
- 5 CONCRETE PIPE-WORK
- 6 CONCRETE SLAB

Fig. 2

ATION LAYER

- 1 SCREED > 4 cm THICK WITH ELECTRIC-WELDED MESH
- 2 POLYTHENE SHEET
- 3 DEFORMABLE MATERIAL
- 4 THERMAL/ACOUSTIC INSULATION LAYER
- 5 CONCRETE SLAB

Fig. 3

Needs and characteristics of the reinforcement by class of the insulation layer

SCREED Thickness Reinforcement

4 cm	Also without reinforcement
4 cm	50x50 mm mesh, $\phi = 2$ mm
5 cm	Also without reinforcement
4 cm	50x50 mm mesh, $\phi = 2$ mm
5 cm	Also without reinforcement
4 cm	100x100 mm mesh, $\phi = 5$ mm
5 cm	50x50 mm mesh, $\phi = 2$ mm

* Flattening - the reduction in thickness of the insulation layer due to the compressive force of a "standard" load according to French norms.



Mapei solutions for the installation of screeds for laying floors

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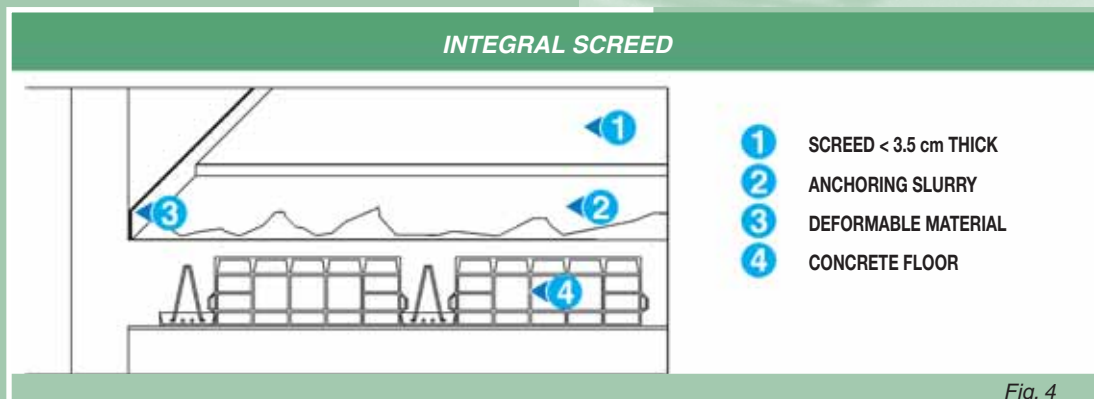


Fig. 4

Table 2 - Recommended dosages for slurries to improve the anchorage of the screed to the substrate

Slurry* base material:

	CEMENT	TOPCEM	TOPCEM PRONTO	MAPECEM	MAPECEM PRONTO
PLANICRETE (parts in weight)	1	1	1	1	1
WATER (parts in weight)	1	1	1	1	1
PRE-PACKED BINDER or MORTAR (parts in weight)	2	3	12	2	8

* For structures subject to heavy mechanical stress, use EPORIP to anchor the screed to the reinforced concrete structure.

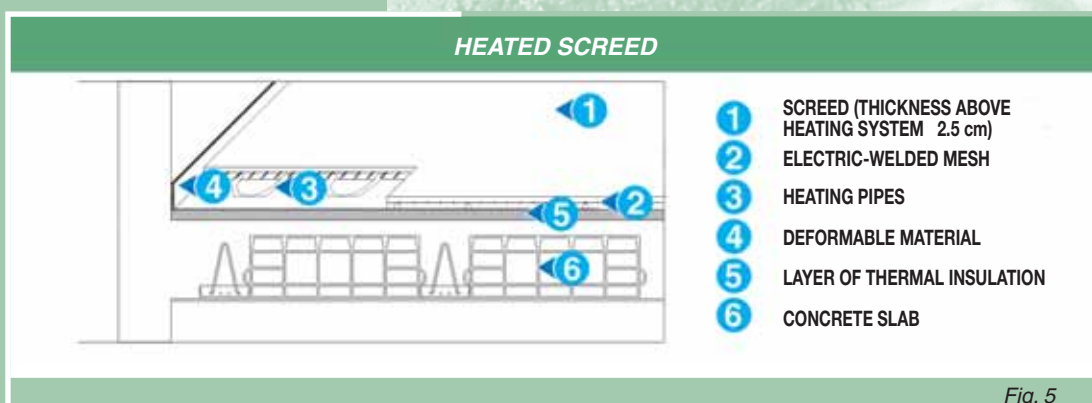


Fig. 5

Table 3 - Waiting times according to the type of binder used in the screed (approx. 4 cm) before carrying out the testing cycle of the under-floor heating system

Cement + aggregates + water + MAPEFLUID N200	Cement + aggregates + water + MAPEFLUID PZ500	TOPCEM PRONTO + water	TOPCEM + aggregates + water	MAPECEM + aggregates + water	MAPECEM PRONTO + water
21 days	14 days	4 days	4 days	1 day	1 day

Table 4 - Performance characteristics* of screeds manufactured with MAPEI special binders and mortars

	Screeds made with:			
	TOPCEM	TOPCEM PRONTO	MAPECEM	MAPECEM PRONTO
Recommended dosage (kg/m³)	200-250	–	350-450	–
Residual moisture (%)				
– after 24 hours	< 3.5	< 3.5	< 2	< 2
– after 3 days	–	–	< 1.6	< 1.6
– after 4 days	< 2	< 2	–	–
Waiting time before applying smoothing compounds	1 ÷ 4 days	1 ÷ 4 days	4 hours	4 hours
Waiting time before laying				
– ceramic tiles	24 hours+	24 hours	3-4 hours+	3 ÷ 4 hours
– marble	2 days+	2 days	3-4 hours+	3 ÷ 4 hours
– wood**	4 days+	4 days	24 hours+	24 hours
Compressive/flexural strength (N/mm²)				
– after 24 hours	> 8/3	> 8/3	> 30/5	> 40/6
– after 3 days	–	–	> 40/6.5	> 50/7
– after 4 days	> 15/4	> 15/4	–	–
– after 7 days	> 22/5	> 22/5	–	–
– after 28 days	> 30/6	> 30/6	> 45/7	> 62/10
+ These waiting times could be extended if when making the screeds, aggregates graded less than suggested (8 mm) are erroneously used or more mixing water is added.				
* At +23°C and 50% R.H.				
** When laying wooden floor coverings, check the level of moisture with a carbide hygrometer to make sure that it is lower than the value recommended by the manufacturer of the wood.				



Mapei solutions for laying ceramic tiles in the renovation of residential buildings

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When renovating old buildings, the laying of new ceramic tile floors and coverings presents a series of specific problems which differ from those encountered in the construction of new buildings.

Mapei is also involved in this sector, with a series of consolidated systems based on the use of a wide range of screeds, levelling compounds, adhesives, grouting mortars and sealants, which are capable of brilliantly solving the numerous problems which are encountered on site.

Although there may be a large number of specific problems which have to be solved when laying ceramic tiles, they may be classified into two distinct groups (Graphic 1).

The first group concerns the laying of new floors without having to completely remove the existing one (Graphic 2). The second group, on the other hand, concerns the laying of completely new floors (Graphic 3).

ANALYSIS OF FLOOR COVERING

Floor covering with well-bonded tiles

Floor covering with well-bonded tiles

Removal of any loose tiles
Cleaning with water and soda, and abrasion where required
Filling of hollows and gaps with **NIVORAPID** or **ADESILEX P4**
Laying ceramic tiles on the floor covering with:

Existing tiles cracked

MAPETEX bonded to existing floor covering with:

**ELASTORAPID
KERAQUICK+LATEX PLUS
or KERABOND/KERABOND T
+ISOLASTIC**

New tiles bonded to MAPETEX with:

**ELASTORAPID
KERAQUICK+LATEX PLUS
KERABOND/KERABOND T+ISOLASTIC
ULTRAFLEX S2 MONO
ULTRAFLEX S2 QUICK**

Existing tiles without cracks

New tiles bonded with:

ADESILEX P10+ISOLASTIC diluted 1:1 with water (mosaic)
ADESILEX P9 (double-fired, single-fired and "cotto" tiles < 30x30 cm)
KERAFLEX (porcelain tiles < 30x30 cm)
KERAFLEX EASY
KERAFLEX MAXI S1, ULTRALITE S1 (> 30x30 cm)
ULTRAFLEX S2 MONO (> 30x30 cm)
ULTRAFLEX S2 QUICK
GRANIRAPID
KERAQUICK
ELASTORAPID

Graphic 2

OF THE OLD COVERING

Floor covering with large
areas of loose tiles

Graphic 1

Floor covering with large areas of loose tiles

Remove the tiles
Check the quality of the existing screed

Screed is solid

Dust down
Apply **PRIMER G**
diluted 1:2-1:3 with water

If required, smooth off with:

**NIVORAPID, ADESILEX P4,
ULTRAPLAN or
ULTRAPLAN MAXI**

Screed is mechanically weak or unsound

Remove the screed
and rebuild with:

**TOPCEM
or
TOPCEM PRONTO**

Consolidate with:

**PROSFAS
or
PRIMER MF**
Smooth off if required

Lay new tiles on the screed

With heating element

KERAFLEX ($\leq 30 \times 30$ cm) - **KERAFLEX EASY**
KERAFLEX MAXI S1, ULTRALITE S1
KERABOND/KERABOND T + 50%
ISOLASTIC ($\geq 30 \times 30$ cm)
KERAQUICK + 50% LATEX PLUS
ELASTORAPID
ULTRAFLEX S2 MONO - ULTRAFLEX S2 QUICK

Without heating element

ADESILEX P10 (mosaic)
KERABOND/KERABOND T
(double-fired, single-fired and "cotto" tiles $< 30 \times 30$ cm)
ADESILEX P9 (porcelain tiles $< 30 \times 30$ cm)
KERAFLEX, KERAFLEX EASY ($> 30 \times 30$ cm)
GRANIRAPID, KERAQUICK

Graphic 3

Mapei solutions for the installation of stone material

The choice of which type of adhesive to use when installing stone material must be made according to their dimensional stability and their sensitivity to water and thermal variations. On the contrary to ceramic tiles, stone material may curl considerably due to the presence of humidity which rises up from the adhesive layer or mortar bed. Furthermore, in the presence of water rising up from the substrate, screed or adhesive, stone materials may be stained and/or present unsightly efflorescence.

Mapei has studied and developed a system, the only one of its kind in the world, to analytically classify stone material according to their sensibility to water, and which is based on the following test procedure:

A damp felt is placed on the reverse side of the stone slab (Fig. 1) to simulate the humidity which rises up from the substrate (sand and cement mortar bed or traditional adhesive); by means of a series of high-precision, digital sensors a real-time recording of the deformation of the stone slab due to the humidity given off from the felt is carried out.

According to the amount of deformation (δ), measured after 6 hours after applying the damp felt, the stone material is divided into three classes (Tab. 1):

a) Class A: $\delta < 0.3 \text{ mm}$

b) Class B: $0.3 \leq \delta < 0.6 \text{ mm}$

c) Class C: $\delta \geq 0.6 \text{ mm}$

For slabs in class A, the choice of adhesive will depend on factors other than the characteristics of the stone material (the size of the slab, type of substrate, service conditions of the material).

For the materials in class B or class C, the test must be repeated, but a layer of fast-setting cementitious adhesive (Fig. 2) is used instead of the damp felt, to establish if the use of a fast-setting adhesive that blocks the movements in the first drying hours is sufficient for laying these particularly moisture sensitive materials, or it is necessary to use a water-free adhesive (epoxy or polyurethane). Table 2 lists the recommended Mapei adhesives for laying natural stone material or agglomerates, based on the dimensional stability for sensitivity to water and thermal variations in relation to their tendency to stain.

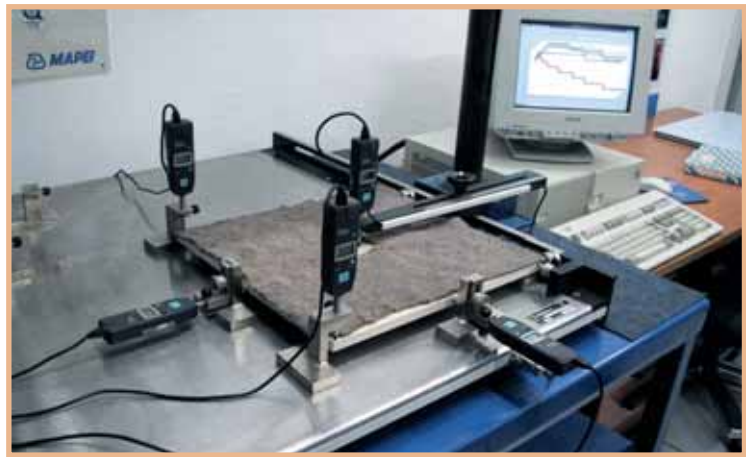


Fig.1 Simulation test with humid felt



Fig.2 Bonding test with an adhesive

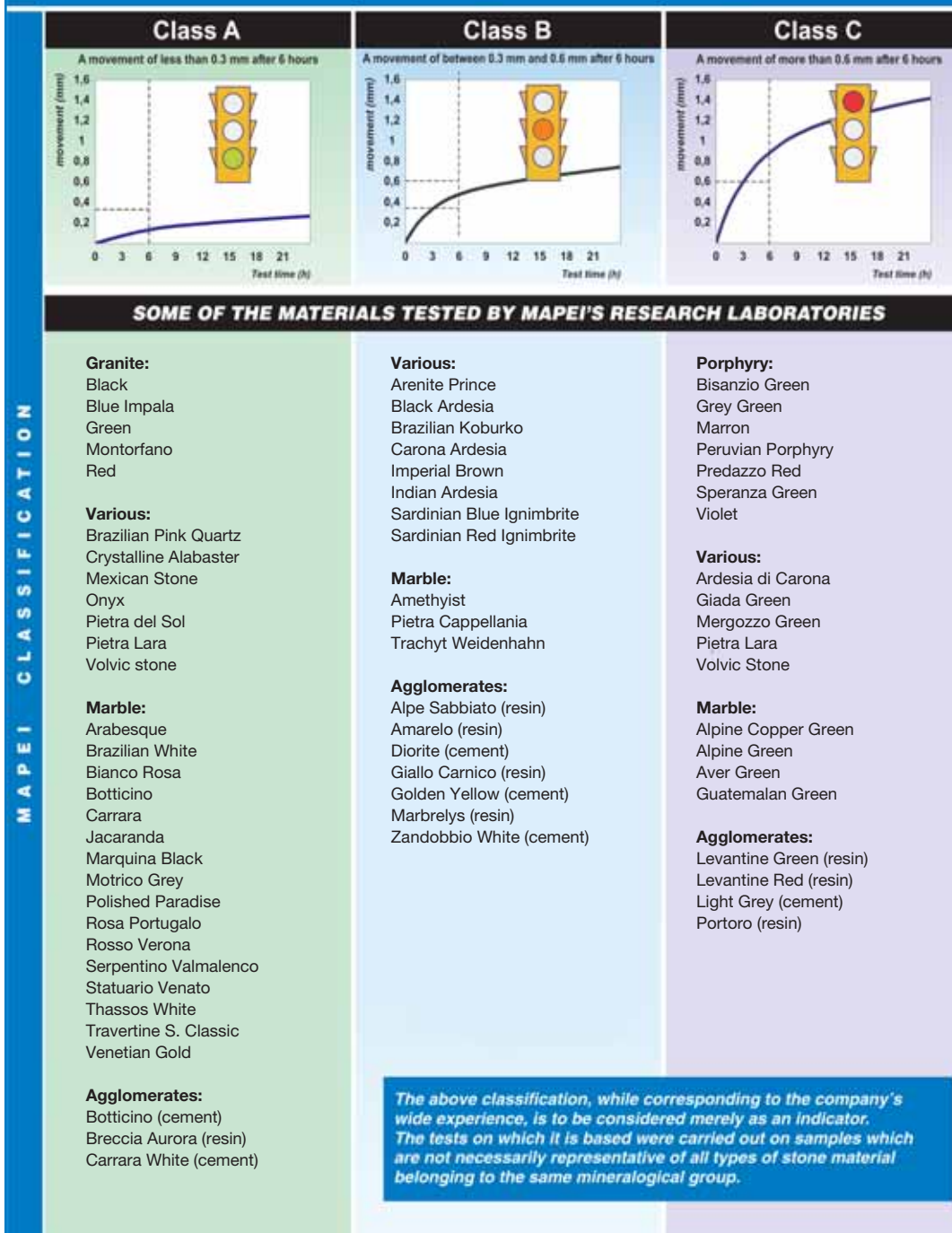


MAPEI ADHESIVES FOR LAYING STONE MATERIAL ON CEMENT-B		
MAPEI'S PRODUCTS	STONE MATERIAL	STAINING
	Natural stone materials Cement-based agglomerates LOCATION: Internal/External	not sensitive
		sensitive
	Resin-based agglomerates* LOCATION: Internal use only	not sensitive
		sensitive

MAPEI ADHESIVES FOR LAYING STONE MATERIAL ON CEMENT-B		
A		
KERAFLEX, KERAFLEX EASY ADESILEX P4 KERABOND/KERABOND T+ISOLASTIC		
GRANIRAPID KERAQUICK ELASTORAPID KERAQUICK + LATEX PLUS		
KERAFLEX MAXI S1 KERACRETE + KERACRETE POWDER		
GRANIRAPID KERAQUICK - ELASTORAPID		

* Because of the high coefficient of thermal expansion (> 25 x 10 ⁻⁶ C ⁻¹) of slabs in resin-based artificial material, this type of material is not recommended for external dressings due to the very high risk of it coming unstuck from the support material. Also, when resin-based artificial material is used for internal applications, if it is laid in areas subject to direct sunlight (close to large shop windows, for example), whatever the stain sensitivity or deformation class of the material, it is necessary to use KERALASTIC.		
** Materials belonging to classes B and C which, af		
*** Materials belonging to classes B and C which, af		

CLASSIFICATION OF NATURAL AND ARTIFICIAL STONE MATERIALS ACCORDING TO THE DIMENSIONAL STABILITY TEST (SENSITIVITY TO WATER)



Tab. 1

BASED PLASTER AND SCREEDS

DEFORMATION CLASS

B**	C***
GRANIRAPID KERAQUICK ELASTORAPID KERAQUICK + LATEX PLUS	KERALASTIC KERAPOXY
GRANIRAPID KERAQUICK ELASTORAPID KERAQUICK + LATEX PLUS	KERALASTIC KERAPOXY
GRANIRAPID KERAQUICK ELASTORAPID	KERALASTIC KERAPOXY
GRANIRAPID KERAQUICK - ELASTORAPID	KERALASTIC KERAPOXY

After repeating the dimensional stability test with **GRANIRAPID**, **KERAQUICK** or **ELASTORAPID**, enter into class A ($\delta < 0.3$ mm).
After repeating the dimensional stability test with **GRANIRAPID**, **KERAQUICK** or **ELASTORAPID**, remain in classes B or C.

Tab. 2

Mapei solutions for fixing ceramics on façades

The fixing of ceramic tiles on façades must be carried out by respecting the following basic rules:

The choice of the most suitable adhesive to use for fixing tiles on facades must be made according to the type and size of the tiles, as well as the type of substrate. MAPEI recommends the following products for fixing ceramic tiles on vertical concrete or rendered substrates:

* For large-sized slabs laid at a height of more than 3 m, some international standards recommend the use of combined fixing with adhesive and mechanical means, selected according to the weight of the slab, the height of the dressing material and on-site conditions.

N.B. For particularly tall buildings, please consult the Technical Assistance Department.

1) Choose an **improved adhesive** and, especially in the case of large-sized tiles, one which is flexible or highly flexible (class **C2S1** or **C2S2** according to EN 12004).

2) Tiles with a surface area of more than 100 cm² or with a highly ribbed back must be laid using the “**double-buttering**” method, that is, by spreading the adhesive on both the substrate and on the back of the tile. This guarantees that there are no voids at the dressing/substrate interface, where rainwater may seep in and stagnate. If the water freezes, dangerous stresses are generated which could cause detachment of the tiles. Double-buttering is also necessary to ensure that the stresses, generated by differential movement between the dressing and the substrate due to thermal changes, for example, are distributed uniformly over a wider area, and also to avoid efflorescence on the façade.

3) Fix the tiles in the adhesive whilst it is still fresh and within the adhesive’s **open time**, in order to guarantee perfect transfer of the adhesive onto the back of the tiles. In **unfavourable environmental** conditions (high tempera-

tures, dry wind), adhesives must be classified as “**E**” according to EN 12004.

4) In **cold weather** conditions, when fixing large-sized tiles, use highly flexible adhesives, class **C2S2**, of the type of adhesive with high bonding strength. Avoid the night-time transformation of water into ice and detachment of the tiles.

5) The tiles must be laid in such a way that the joints must be of the same width in all conditions and must be recognised standard joints without joints. In fact, tile joints must be of the same width when laying large tiles: **a)** the difference between the joints is pronounced; **b)** the joints are not of the same width, both

SIZE	SUBSTRATE	RECOMMENDED ADHESIVE	
		NORMAL SETTING	CLASSIFICATION ACCORDING TO EN 12004
Mosaic max 25 cm ²	Render/ concrete	ADESILEX P10	C2TE
Glass mosaic max 25 cm ²	Render/ concrete	ADESILEX P10 + ISOLASTIC (diluted with water at a ratio of 1:1)	C2TE S1
Max 400 cm ²	Render	ADESILEX P9	C2TE
	Concrete	KERAFLEX	C2TE
Max 900 cm ²	Render	KERAFLEX	C2TE
	Concrete	KERAFLEX MAXI S1	C2TE S1
Max 1600 cm ²	Render	KERAFLEX MAXI S1	C2TE S1
	Concrete	ULTRAFLEX S2 MONO	C2TE S2
> 1600 cm ² *	Render	ULTRAFLEX S2 MONO	C2TE S2
	Concrete	KERABOND+ISOLASTIC KERABOND T+ISOLASTIC	C2E S2 C2 S2

d, etc.), where possible, use adhesives " (long open time) according to Standard

r and during the winter, especially when ed tiles, it is better to use **fast-setting** sified as "**F**" according to EN 12004. This e ends its setting phase and reaches a high h within a few hours of fixing the tiles, before temperature drops to less than 0°C. The of water, used for preparing the adhesive, erioration of the adhesive is thus avoided.

e fixed with wide tile joints. The width of the e calculated according to local climatic the size of the tiles. Most internationally-dards agree that it is unacceptable to fix tiles

s are of fundamental importance, especially e-sized tiles, for the following reasons: e in flatness between each single tile is less

sealed with a cementitious or epoxy-based of which have lower elastic-mechanical

characteristics than those of the tiles ($E_{\text{joints}} = 14\text{-}21 \text{ GPa}$; $E_{\text{tile}} = 50\text{-}80 \text{ GPa}$). Therefore, in those cases in which there is deformation of the substrate or the ceramic dressing due to thermal distortion, for example, the joints avoid high stresses being transmitted to the adhesive and causing detachment of the tiles.

6) All of the **structural joints** must be **respected**, for both their size and their relative positions.

7) Movement **joints must be made** in correspondence with frontals, corners and sharp edges, and in all cases, every 9-12 m² (Fig. 3).

8) Protect the dressing material from the penetration of water and from potentially harmful freeze/thaw cycles, by using either a suitable sealing product or metallic flashing along the upper and lower parts of the entire dressing material, and also corresponding with windows and openings.

		MINIMUM WIDTH OF JOINTS	JOINTS
RAPID SETTING	CLASSIFICATION ACCORDING TO EN 12004		
KERAQUICK	C2FT S1	Distance of tiles assembled on paper or mesh	In correspondence with corners, sharp edges, frontals, joints in the substrate and around doors and windows
ELASTORAPID	C2FTE S2	Distance of tiles assembled on paper or mesh	In correspondence with corners, sharp edges, frontals, joints in the substrate and around doors and windows
KERAQUICK	C2FT S1	6 mm	Every 12 m ² , in correspondence with corners, sharp edges, frontals, joints in the substrate and around doors and windows
		8 mm	
ELASTORAPID	C2FTE S2	8 mm	Every 12 m ² , in correspondence with corners, sharp edges, frontals, joints in the substrate and around doors and windows
		10 mm	
ELASTORAPID	C2FTE S2	12 mm	Every 9 m ² , in correspondence with corners, sharp edges, frontals, joints in the substrate and around doors and windows
KERAQUICK + LATEX PLUS or ULTRAFLEX S2 QUICK	C2FT S2		
KERAQUICK + LATEX PLUS or ULTRAFLEX S2 QUICK	C2FT S2	12 mm	Every 9 m ² , in correspondence with corners, sharp edges, frontals, joints in the substrate and around doors and windows

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OF CERAMIC TILES AND STONE MATERIAL

PRODUCT											
KERAPOXY P		RG									
KERAPOXY SP		RG									
KERAQUICK	C2FT S1			EN 12004	●		●				
KERAQUICK + LATEX PLUS	C2FT S2										
KERASET	C1			EN 12004		●	●				
MAPECEM PRONTO			CT-C60-F10 A1n	EN 13813							
MAPEFLUID N200				EN 934-2							
MAPEFLUID PZ500				EN 934-2							
MAPEFONIC GROUT		CG2			●		●		●	●	
MAPEFONIC MORTAR	C2FT S1			EN 12004	●		●				
MAPELASTIC				EN 1504-2							
MAPELASTIC SMART				EN 1504-2							
MAPESILENT BAND							●				
MAPESILENT DOOR							●				
MAPESILENT PANEL							●				
MAPESILENT ROLL							●				
MAPESILENT TAPE							●				
MAXIFUGA		CG2									
NIVOPLAN				EN 998-1							
NIVORAPID			CT-C40-F10 A2n	EN 13813		●	●				
PLANO 3			CT-C25-F7 A2n	EN 13813							
PLANOBOND	C2E			EN 12004		●	●				
PRIMER G					●		●				
TIXOBOND WHITE			C1TE	EN 12004		●	●				
TOPCEM PRONTO			CT-C30-F6 A1n	EN 13813		●	●				
ULTRACOLOR PLUS		CG2			●		●		●	●	
ULTRAFLEX S2 MONO	C2TE S2			EN 12004			●				●
ULTRAFLEX S2 QUICK	C2FT S2			EN 12004			●				●
ULTRALITE S1	C2TE S1			EN 12004			●	●			●
ULTRAMASTIC 2	D2T			EN 12004							
ULTRAMASTIC 5	D2TE			EN 12004							
ULTRAMASTIC III	D2TE			EN 12004							
ULTRAPLAN			CT-C30-F7 A2n	EN 13813	●		●				
ULTRAPLAN ECO			CT-C25-F7 A2n	EN 13813	●		●				
ULTRAPLAN MAXI			CT-C35-F7 A2n	EN 13813	●		●				

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