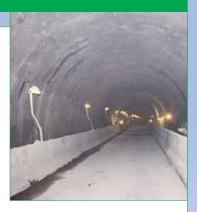
# Mapegrout T60



#### Sulphate-resistant thixotropic fibre-reinforced mortar for the repair of concrete.

Use Mapegrout T60 to repair damaged concrete surfaces such as balconies and corners of columns and beams.

Mapegrout T60 is also recommended for

repair work in tunnels, canals and water works in general.

Mapegrout T60, mixed with about 17%

water, and 0.25 of Mapecure SRA forms a very workable mortar with a thixotropic consistency that is easily applied on vertical surfaces without shuttering. The product may be used without adding Mapecure SRA, when environmental conditions permit excellent curing. Mapegrout T60 is applied by trowel, float or sprayer onto damp substrates that are sound, rough and free of loose particles, and been saturated with water beforehand. Repairs up to 40 mm thick in a single coat can be made.

Mapegrout T60 meets the minimum requirements of EN 1504-3 standards for R4-class structural mortar.

#### Consumption

18.5 kg/m2 per cm of thickness.

#### **Packaging** 25 kg bags.







### Mapegrout FMR



Two-component shrinkage compensated sulphate resistant thixotropic mortar to be reinforced with flexible metal alloy fibres, particularly suitable for the repair of concrete structures where more ductility is required.

Use Mapegrout FMR to repair damaged concrete structures such as tunnels, highways, road and train viaducts, dam spillways, overflow canals, industrial

flooring and ramps.
When mixed with **Fibres FF** (inoxidizable flexible fibres composed of a special amorphous metal alloy of iron-chrome) and water, **Mapegrout FMR** becomes an easily workable mortar. Thanks to the excellent thixotropic property of Mapegrout FMR, it can be applied on vertical surfaces even in great thicknesses without formwork.

Fibres FF are available in water-soluble bags, net weight 375 g each.
Mix ratio: 1 bag of Fibres FF per 25 kg bag

of the powder product.

Mapegrout FMR is applied by trowel or a render sprayer (e.g. Turbosol or Putzmeister) after the surface has first been saturated with water, in a maximum thickness of 50 mm per coat. To improve open-air curing and further reduce shrinkage, **Mapegrout FMR** can be mixed with 0.25% by weight of Mapecure SRA, curing agent.
Mapegrout FMR, with the addition of
Fibres FF, meets the minimum requirements of EN 1504-3 standard

#### Consumption

19 kg/m² per cm of thickness.

for R4-class structural mortar.

25 kg bags + 375 g water-soluble bags of **Fibres FF**.







#### Fibres FF



Inoxidizable flexible fibres in amorphous iron and chrome alloy to be added to Mapegrout FMR to improve its ductility.

Fibres FF are composed of a special amorphous iron and chrome alloy. The flexibility and high aspect ratio (length/diameter) of Fibres FF make mortars highly ductile and shock resistant. All the Mapegrout range mortars can be reinforced with the addition of 1.0-1.5% Fibres FF by weight (approximately 20-30 kg/m³ of prepared mortar) of the dry ready mix.

#### Consumption

375 g per 25 kg bag of Mapegrout FMR.

Packaging 375 g water-soluble bags.





# Mapegrout Easy Flow GF



One component, shrinkage compensated, sulphate-resistant, thixotropic, inorganic fibre-reinforced mortar, for repairing concrete structures where higher ductility is required.

Mapegrout Easy Flow GF is used for repairing deteriorated concrete structures such as pillars, the inside face of road and railway viaducts, hydraulic works such as canals, dam walls, overflow channels, cleaning basins and tanks, concrete industrial floors and access ramps. Mapegrout Easy Flow GF mixed with 15.5-16.5 of water and 0.25% of Mapecure SRA is particularly suitable for spray application and whenever easy pumping over long distances and to elevated positions is required. The product may be used without adding Mapecure SRA, when environmental conditions permit excellent curing. Thanks to its highly thixotropic properties,

Mapegrout Easy Flow GF may be applied mechanically or by hand on vertical surfaces, even in thick layers without the use of formwork.

Maximum recommended thickness per layer is 50 mm.

Mapegrout Easy Flow GF meets the minimum requirements of EN 1504-3 standards for R4-class structural mortar.

#### Consumption

18.5 kg/m² per cm of thickness.

#### Packaging

25 kg bags; 1500 kg big-bags.







### **Mapegrout BM**



Two-component thixotropic cementitious mortar with low modulus of elasticity for the repair of concrete.

Mapegrout BM is recommended for surface repair of damaged concrete subject to small deformation under loads, to thermal cycles or especially adverse weather conditions.

Mapegrout BM is recommended also for repairing concrete beams, columns, balconies, and precast concrete sections. Mapegrout BM has excellent waterproofing properties and is therefore recommended for repairing canals, water tanks and hydraulic projects in general.

Mapegrout BM, because of its low
modulus of elasticity, is recommended for the repair of concrete with moderate mechanical strength.

Mapegrout BM is applied with trowel or spray even on vertical surfaces or ceilings without formwork in a maximum thickness of approx. 35 mm per layer.

The substrate must be sound, compact and rough. Before applying **Mapegrout BM**, the surface to be repaired should be saturated with water.

Mapegrout BM may be mixed with 0.25% in weight of Mapecure SRA, curing agent. Mapegrout BM meets the minimum requirements of EN 1504-3 standards for R4-class structural mortar.

#### Consumption

approx. 21 kg/m² per cm of thickness.

#### Packaging

25 kg bags; 4.7 kg drums.







Le Phare de Palavas Les Flot - France Reparation of the concrete of the building with: MAPEFER, MAPEGROUT FAST-SET

# **Mapegrout Fast-Set**



Controlled-shrinkage, fibre-reinforced mortar, with rapid setting and hardening for the repair of concrete.
Use Mapegrout Fast-Set to repair damaged concrete surfaces such as balconies and the edges of beams and

Mapegrout Fast-Set is composed of special hydraulic binders, selected aggregate, special additives and synthetic fibres, and is prepared by mixing a 25 kg

bag with 3.75-4 litres of water.

Mapegrout Fast-Set must be applied within 10 minutes of preparation, by trowel onto a clean sound substrate, which has been previously soaked with water. Apply up to a maximum thickness of 20-25 mm per layer.

Mapegrout Fast-Set sets within 30 minutes at +20°C and is ready for use within a few hours after application. Mapegrout Fast-Set meets the minimum requirements of EN 1504-3 standards for R3-class structural mortar.

#### Consumption

18 kg/m<sup>2</sup> per cm of thickness.

#### **Packaging**

25 kg bags.

columns.











11111111

# **Mapegrout Gunite**



One-component pre-packed multipurpose non-accelerated cementitious mortar applied using either the dry or damp spraying technique.

Mapegrout Gunite is used for all repair of damaged concrete, such as concrete linings in road tunnels, repair of damaged bridges, repair of hydro works, reservoirs, industrial concrete structures, etc. Due to its high mechanical properties, Mapegrout Gunite can be used for

structural repairs.

Mapegrout Gunite is composed of hydraulic binders, microsilicates, selected aggregate, and special additives and is applied with a special dry or damp mix spray machine on a clean and rough surface after it has been saturated with water.

Mapegrout Gunite can be applied in thicknesses up to 40 mm per coat without using formwork.

Mapegrout Gunite meets the minimum requirements of EN 1504-3 standards for R4-class structural mortar.

#### Consumption

approx. 20 kg/m² per cm of thickness.

#### **Packaging**

25 kg bags.



# Mapegrout Hi-Flow



Controlled-shrinkage fibre-reinforced fluid mortar for concrete repair.

Use Mapegrout Hi-Flow for the repair of very damaged concrete structures where the use of fluid mortars is recommended. Made of cement binders, selected graded aggregate special additives and synthetic fibres, Mapegrout Hi-Flow is prepared by mixing a 25 kg bag with 13-14 and 0.25% of **Mapecure SRA**.

The product may be used without adding Mapecure SRA, when environmental conditions permit excellent curing The mix must be poured into sealed formwork. Care must be taken to let air escape in order to prevent air-bubbles. Thicknesses up to 4 cm can be repaired with Mapegrout Hi-Flow. For greater thicknesses, the addition of appropriately graded aggregate is recommended. Mapegrout High-Flow meets the minimum requirements of EN 1504-3 standards for R4-class structural mortar.

#### Consumption

21 kg/m<sup>2</sup> per cm of thickness.

#### **Packaging**

25 kg bags.

Castable, shrinkage-compensated cementitious mortar reinforced with inorganic fibres, for repairing concrete structures where higher ductility is required.

Mapegrout Hi-Flow GF

New <

Mapegrout Hi-Flow GF is used to repair concrete structures where high thicknesses and special conformations of deterioration require the use of a castable mortar. Made up of high-strength cement, selected aggregates, special admixes, polyacrylonitrile synthetic fibres and inorganic fibres, Mapegrout Hi-Flow GF is prepared by mixing the contents of one sack with 14-15% of water and 0.25% of **Mapecure SRA**. The product may also be used without adding Mapecure SRA, in those cases where climatic conditions allow for a favourable curing cycle. The mix is poured in from one side only of the sealed formwork in a continuous flow making sure that all the air is released to avoid the formation of air pockets. Repairs of up to 5cm thick may be carried out using Mapegrout Hi-Flow GF without having to insert electro-welded support mesh. For higher thicknesses, we recommend adding aggregates with a suitable grain size mix. Mapegrout Hi-Flow GF meets the minimum requirements of EN 1504-3 standards for R4-class structural mortar.

**Consumption** approximately 21 kg/m² per cm of thickness.

#### Packaging

25 kg bags.















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Landucci condominium - Florence - Italy Reparation and protection of the condominium façade with: MAPEFER 1K, MAPEGROUT FAST-SET, PLANITOP 400, PLANITOP 560, SILANCOLOR PRIMER, SILANCOLOR PAINT



# Mapegrout Hi-Flow TI 20



Castable, shrinkage-compensated. fibre-reinforced, high-ductility cementitious mortar, used in conjunction with stiff steel fibres

for repairing concrete.

Mapegrout Hi-Flow TI 20 is used to repair concrete structures where high thicknesses and special conformations of deterioration require the use of a castable mortar. Made up of high-strength cement, selected aggregates, special admixes and polyacrylonitrile synthetic fibres, **Mapegrout Hi-Flow TI 20** is prepared by mixing the contents of one sack with 14-16% of water, 0.25% Mapecure SRA and 4.5% of **Fibres R60**, rigid hooked fibres in zinc-plated steel.

The product may also be used without adding **Mapecure SRA** if the weather conditions allow for optimum curing. Also, when repairing structures where the mortar does not need to be highly ductile, Mapegrout Hi-Flow TI 20 may be used without adding Fibres R60.

The mix is cast from one side only of the sealed formwork in a continuous flow, making sure that all the air is released to avoid the formation of air bubbles in the mix. Repairs of up to 5 cm thick may be carried out using Mapegrout Hi-Flow TI 20 without having to insert electrowelded support mesh.

For greater thicknesses, we recommend adding aggregates with a suitable grain size mix.

Mapegrout Hi-Flow TI 20 meets the minimum requirements of EN 1504-3 standards for R4-class structural mortar.

#### Consumption

approx. 20 kg/m² per mm of thickness.

#### **Packaging**

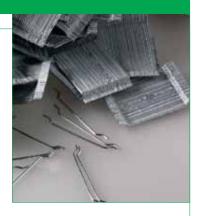
- Mapegrout Hi-Flow TI 20: 25 kg bags;
- Fibres R60: 4.5 kg boxes.







#### Fibres R60



Rigid hooked fibres in zinc-plated steel, added to Mapegrout Hi-Flow

TI 20 to improve ductility.
Fibres R60 is made up of cold-drawn, zinc-plated steel wire with a hooked tip. The high shape ratio (length/diameter) of Fibres R60 gives Mapegrout Hi-Flow TI 20 high ductility and impact strength. Fibres R60 is supplied in sheets of fibres glued together to make it easier to add them to the mix. Once added to Mapegrout Hi-Flow TI 20 mixed with water, the fibres separate and are distributed evenly in the mix. Fibres R60 has the following characteristics:

- length: 30 mm;

- diameter: 0.6 mm;
- tensile strength: > 1200 MPa;
- modulus of elasticity: 210 GPa.

Mapegrout Hi-Flow TI 20 must be strengthened with Fibres R60 at a rate of 4.5% of the weight of the dry pre-blended

#### Consumption

4.5 kg per 100 kg of **Mapegrout Hi-Flow TI 20**.

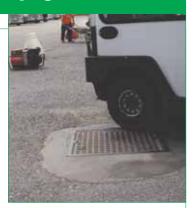
#### **Packaging**

4.5 kg boxes.





#### Mapegrout SV



Quick-setting, easy-pour, controlled-shrinkage mortar for repairing concrete and fastening drains, manhole covers and roadwork fittings in place. Mapegrout SV is used for repairing highlydeteriorated concrete structures, by pouring the product into formwork positioned around the said structure. It may also be used for repairing floors for industrial use, and for construction work on roads and in airports which need to be reopened to traffic quickly.
Thanks to its short setting time, Mapegrout SV is particularly suitable for quickly fixing inspection wells, manhole covers and drain covers in place. Made up of cementitious binders and special additives, Mapegrout SV is prepared by blending the contents of one 25 kg bag of the product with 3.0-3.25 l of

Once prepared, the mortar is poured into the areas to be filled or into the formwork.
With **Mapegrout SV**, repair work or fills of up to 50 mm in thickness may be carried out. If the layer to be installed is thicker than 50 mm, we recommend adding 40% of **Gravel 6-10**, and to blend the mix with approximately 3.5 I of water. Areas repaired with **Mapegrout SV** may be opened to traffic approximately 2 hours after pouring, at a temperature of +20°C.

Mapegrout SV meets the minimum requirements of EN 1504-3 standards for R4-class structural mortar.

water, depending on the consistency

#### **Colours**

required.

available in grey and black.

#### Consumption

- applied neat: 20 kg/m² per cm of thickness:
- used with 40% of gravel in the mix: 14.5 kg/m² per cm of thickness (5.7 kg/m² of **Gravel 6-10**).

#### **Packaging** 25 kg bags.







#### **Mapegrout SV T**



Quick-setting, shrinkage-controlled, thixotropic mortar for repairing concrete, fixing drains, manholes and urban fixtures.

Mapegrout SV T is used for repairing highly deteriorated *in-situ* concrete elements, both vertical and horizontal, without the use of formwork. It may also be used for repairing industrial floors, and for construction work on roads and in airports which need to be reopened to traffic quickly. The rapid hardening properties of Mapegrout SV T are particularly suitable for reinstating, inspection wells, manholes and drain covers. Containing cementitious binders, selected inert materials and special additives, Mapegrout SV T is prepared by blending the contents of one 25 kg bag of the product with 3.1-3.4 litres of water.

After preparation, Mapegrout SV T may be applied by trowel for repairs up to 50 mm thick. **Mapegrout SV T** may be opened to traffic approximately 2 hours after placing, at a temperature of +23°C. Mapegrout SV T meets the minimum requirements of EN 1504-3 standards for R4-class structural mortar.

#### Colours

available in grey and black.

#### Consumption

20 kg/m<sup>2</sup> per cm of thickness.

#### **Packaging**

25 kg bags.

### **Mapegrout SV Fiber**



Castable, compensated shrinkage, quick setting and hardening, highductility cementitious mortar applied at temperatures down to -5°C, used in conjunction with stiff steel fibres for repairing concrete.

Mapegrout SV Fiber is used for repairing

structural elements, by pouring the product into formwork positioned around the structure. Thanks to its high ductility, Mapegrout SV Fiber is particularly recommended for repairing roads, motorways, airports and industrial floors which, apart from being subject to dynamic loads, must be reopened to traffic as quickly as possible. Because of its quicksetting characteristics, Mapegrout SV Fiber may be used at temperatures down to -5°C. Made up of high-strength cement, selected aggregates, special admixes and special admixes, Mapegrout SV Fiber is prepared by mixing the contents of one sack with 13.5-14.5% of water and 2.5% of Fibres R38, rigid hooked fibres in brassplated steel. The mix is cast from one side only of the sealed formwork in a continuous flow, making sure that all the air is released to avoid the formation of air bubbles in the mix. With Mapegrout SV Fiber, repairs may be carried out up to a thickness of 5 cm. If thicker layers are required, we recommend adding aggregates with a suitable particle size distribution.

Mapegrout SV Fiber with added Fibres R38 meets the minimum requirements of EN 1504-3 standards for R4-class structural mortar.

Consumption

Approx. 20 kg/m² per mm of thickness.

- Mapegrout SV Fiber: 25 kg bags;
  Fibres R38: boxes of six 2.5 kg bags.











#### Fibres R38



Rigid hooked fibres in brass-plated steel, added to Mapegrout SV Fiber to

improve ductility.
Fibres R38 is made up of brass-plated steel wire with a hooked tip. The high shape ratio (length/diameter) of
Fibres R38 gives Mapegrout SV Fiber ductility and impact strength.

Fibres R38 is supplied in sheets of fibres glued together to make it easier to add them to the mix. Once added to

Mapegrout SV Fiber mixed with water, the fibres separate and are distributed evenly in

Fibres R38 has the following

- characteristics:
- length: 30 mm;
- diameter: 0.38 mm; tensile strength: > 2600 MPa. Mapegrout SV Fiber must be

strengthened with Fibres R38 at a rate of 2.5% of the weight of the dry pre-blended

#### Consumption

2.5 kg per 100 kg of Mapegrout SV Fiber.

Packaging boxes of six 2.5 kg bags.



# Gravel 3-5 Gravel 6-10



Gravel 3-5 and Gravel 6-10 are selected and graded in a range of 3 to 5 mm and 6 to 10 mm respectively, and are used for preparing castable mortar poured into formwork for thicknesses of more than 2 cm.

Gravel 3-5 is a silica-based stone aggregate selected and graded in a range of from 3 to 5 mm, and is used for mixing mortar from the Mapegrout range when the thickness to be repaired is more than

Gravel 6-10 is a silica-based stone aggregate selected and graded in a range of from 6 to 10 mm, and is used for mixing repair mortar such as

Mapegrout Hi-Flow or expanded mortar such as Mapefill when the thickness to be repaired is more than 2 cm.

#### Consumption

Gravel 3-5:

30-100% of the weight of the pre-blended mix, according to the thickness to be repaired and the fluidity required. Gravel 6-10:

30-100% of the weight of the pre-blended mix, according to the thickness to be repaired and the fluidity required.

Packaging Gravel 3-5: 25 kg bags; Gravel 6-10: 25 kg bags.

# Mapestart 1



#### Pumping aid admix for mortar and

Mapestart 1 is a powder admix developed to lubricate tubes and pumping lines, and helps the cementitious mix to start flowing. Mapestart 1 may be mixed easily with water directly inside the hopper. Once the admix has been emptied from the hopper, the cementitious mix may be pumped. Never add **Mapestart 1** to the mix. Mapestart 1 forms an extremely thin film in the pumping lines, which reduces friction between the walls of the pipes and the cementitious mix pumped along them, to reduce the risk of blockages.

Also, if Mapestart 1 is used at the end of the pumping operations, the pipes will be cleaner and will have a longer service life.

#### Consumption

Dependent on the characteristics of the pump (size and power) and the pumping lines (length and size).

Packaging boxes of forty 225 g bags.



# Repairing with cementitious binders



#### Stabilcem



# Very fluid expanding cementitious binder for the preparation of injection

slurries, mortars and concrete.
Use Stabilcem to prepare shrinkage-compensated injection slurries, mortars and concrete.

Stabilcem can be used for filling cavities and cracks into rock and brickwork and for filling internal porosity of concrete. Due to its characteristics, self-levelling concretes obtained with Stabilcem can be pumped under high mechanical pressure without any risk of segregation.

Mix **Stabilcem** with appropriately graded

aggregate, depending on the type of work to be carried out, and then add water. Mix until completely homogeneous, then apply the product.

To improve open-air curing and further reduce shrinkage, **Stabilcem** can be mixed with 5 to 8 l/m³ of **Mapecure SRA**, curing agent.

#### Consumption

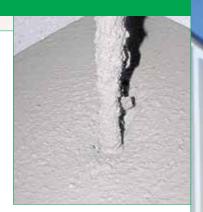
- injection slurry: 1.6 kg/dm³ of cavity to be filled;
- mortar: 350-550 kg/m³;
   concrete: 300-400 kg/m³.

#### **Packaging**

20 kg bags.



#### Stabilcem SCC



#### Cementitious binder for manufacturing dimensionally stable self-compacting concrete mixtures to repair concrete structures. Stabilcem SCC is used to manufacture

concretes with different aggregate sizes suitable for repairing, by casting, columns, bridge superstructures, and hydraulic works. Thanks to its properties, very fluid cement mixtures (slump flow: 65-70 cm) which do not segregate when placed by pump or by casting without vibration are obtained. By using **Stabilcem SCC** it is possible to reduce costs of repair work, shorten construction time, remove noise caused by vibration and improve the appearance of the structures. Preparing concrete mixtures with D<sub>max</sub> = 8 mm, mix **Stabilcem SCC** with graded aggregate between 0 to 8 mm or with **Gravel 0-8** and **Gravel 0-15.** For manufacturing concrete with  $D_{\text{max}} = 20$  mm, mix **Stabilcem SCC** with aggregates with a maximum diameter not above 20 mm.

To improve open-air curing and further reduce shrinkage, **Stabilcem SCC** can be mixed with 5 to 8 l/m³ of **Mapecure SRA**, curing agent.

#### Consumption

concrete with D<sub>max</sub> = 8 mm: 600 kg/m³; concrete with  $D_{max} = 20$  mm: 500-600 kg/m<sup>3</sup>.

#### **Packaging**

20 kg bags; 600 kg big bags.



# Repairing with epoxy resins

#### **Gravel 0-8** Gravel 0-15



Gravel 0-8 and Gravel 0-15, graded between 0 and 8 mm and between 0 and 15 mm to be used mixed with **Stabilcem** or **Stabilcem SCC**, cementitious binders to be used in place of cement to manufacture pumpable controlled shrinkage concrete or self-compacting concrete for the repair of damaged concrete structures. Furthermore, **Gravel 0-8** can be used mixed with **Mapecem**, special rapid drying hydraulic binder for making screeds.

#### Consumption

Gravel 0-8:

30-100% by weight of pre-packed mortar. If used as an aggregate to manufacture concrete with **Stabilcem** or Stabilcem SCC, the consumption (indicatively from 1400 to 2000 kg/m³) varies in relation to the dosage of the respective binders.

#### Gravel 0-15:

30-100% by weight of pre-packed mortar. If used as an aggregate to manufacture concrete with **Stabilcem** or Stabilcem SCC, the consumption (indicatively from 1400 to 2000 kg/m³) varies in relation to the dosage of the respective binders.

#### **Packaging**

Gravel 0-8: 20 kg bags. Gravel 0-15: 25 kg bags.

A&C Adivar Comifar industrial loft - San Nicolò a Tordino - Italy Reparation and protection of the industrial structure with: MAPEFER, STABILCEM SCC, MONOFINISH, MALECH, ELASTOCOLOR RASANTE, SILANCOLOR PRIMER, SILANCOLOR PAINT

#### Mapefloor EP19



Three-component acid-resistant epoxy mortar for thick wear-resistant applications

Mapefloor EP19 is used as an acidresistant, wear-resistant protection of concrete structures, for example bearings for crane and bridge crane runways, beds for sewage treatment machinery, ramps,

Mapefloor EP19 is suitable for rebuilding the corners of expansion joints in damaged industrial concrete flooring due to the impact of trucks, forklifts, etc.

Prepare Mapefloor EP19 by mixing parts A and B, then while mixing, add part C (the powdered component).

Apply Mapefloor EP19 with a flat trowel or

helicopter.
Saturate the surface, using a towel, with
Primer MF or Mapefloor I 300 SL, epoxy resins that must be charged with Quartz 0.25 sand. A coloured coat can be obtained with Mapecoat I24, epoxy resin, that can be applied with a roller.

#### Consumption

- Primer MF (applied with a trowel or roller): 0.200-0.300 kg/m²;

  Mapefloor EP19 (applied with a trowel or
- helicopter): 20 kg/m<sup>2</sup> per 1 cm of thickness:
- Primer MF or Mapefloor I 300 SL: 0.300-0.400 kg/m² (when Mapefloor EP19 is applied with a helicopter);
- Primer MF or Mapefloor I 300 SL: 0.400-0.600 kg/m² (when Mapefloor EP19 is applied with a trowel);
- Mapecoat I 24: 300 g/m<sup>2</sup>.

#### Packaging

- Mapefloor EP19: 10 kg (A+B+C);
- **Primer MF**: 1 kg (A+B); 6 kg (A+B); **Mapecoat I 24**: 5 kg (A+B);
- Mapefloor I 300 SL: 10 kg (A+B).



#### Planigrout 300



Fluid three-component epoxy mortar for the reparation of damaged concrete structures, precision fastening and reinforcement of industrial flooring.

Planigrout 300 is used for repairing damaged concrete structures, for example overhead and bridge-crane runways in industries and shipyards. More in general, for evening-out concrete surfaces in areas that are difficult to reach. Thanks to the fact that Planigrout 300 hardens without shrinking, the product can be used as a mortar for precision fastening.

Planigrout 300 can also be used for preparing industrial flooring with very high mechanical strength, such as workshops, garages and warehouses subject to intense rubber wheel trolley traffic.
First mix part A with part B, then, after

adding part C, remix until a homogeneous lump-free mixture is obtained.

#### Consumption

2 kg/m² per mm of thickness.

#### **Packaging**

- 30.5 kg units (A+B+C): part A: 4 kg part B: 1.5 kg
- part C: 25 kg
- 12.2 kg units (A+B+C):
- part A: 1.6 kgpart B: 0.6 kg

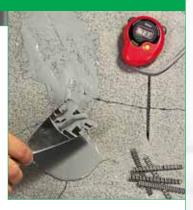




# Repair of cracked concrete by injection and casting







#### 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.

#### Consumption

1.7 kg/dm3 of cavity to be filled.

#### **Packaging**

508 g metal jars Part A: 500 g; Part B: 8 g.



### **Epojet**



#### Two-component superfluid epoxy resin for injection.

Epojet is used for monolithic repair of structures which have cracked due to overloading, impact, earthquakes etc; it is also used for bonding and structural strengthening by low pressure injection and for sealing cracks in cement screeds. Epojet is a solvent-free epoxy adhesive, consisting of two pre-measured components to be mixed together with an electric stirrer prior to use. After mixing, **Epojet** becomes a low viscosity liquid ideal for injection.

Epojet polymerizes without shrinkage and is waterproof after hardening. For monolithic repair of degraded structures, inject **Epojet** into the cracks with a pump. Horizontal cracks in screeds can be sealed simply by pouring **Epojet** directly into them.

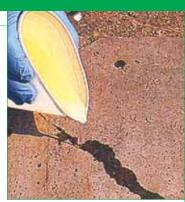
#### Consumption

- sealing of cracks:
   1.1 kg/dm³ of cavity to be filled;
   bonding concrete-steel:
- 1.1 kg/m² per mm of thickness.

#### **Packaging**

4 kg (A+B) and 2.5 kg (A+B).

# **Epojet LV**



#### Two-component very low viscosity epoxy resin for injection in micro

Epojet LV is used to attribute the monolithic nature to cracked structures and for bonding and structural strengthening of concrete and masonry elements by low pressure and/or at atmosphere pressure injection. The product can be used for sealing cracks in cementious screeds. Epojet LV is a solvent-free, low viscosity, two-component epoxy adhesive. After mixing, **Epojet LV** becomes an extremely fluid liquid ideal for injection.

Epojet LV polymerises without shrinkage and is waterproof after hardening. For monolithic repair of damaged structures, inject Epojet LV into the cracks with a low pressure or at atmosphere pressure pump. Horizontal cracks in screeds can be sealed by pouring **Epojet LV** directly into them.

#### Consumption

- sealing cracks: 1.1 kg/dm³ of cavity to be filled;
- bonding concrete-steel:
- 1.1 kg/m² per mm of thickness.

#### **Packaging**

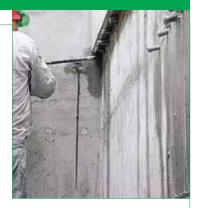
4 kg (A+B) and 2.5 kg (A+B).







### Foamjet F



Fluid ultra rapid setting two-component polyurethane resin to be injected for consolidating and water-proofing structural elements subject

proofing structural elements subject to weak water ingress.
Use Foamjet F to consolidate rocks, grounds and waterproofing cracked concrete and masonry structures such as tunnels, shafts, dams, canals, bulkheads,

damp flooring or beds.

Foamjet F is a two-component halogenfree resin that must be used with special machinery that is able to measure and mix Part A with Part B in a 1:1 ratio by volume. Thanks to its high fluidity, **Foamjet F** can penetrate through cracks of even several hundred microns and seal the cracks even if they are subject to water infiltrations.

Once set, **Foamjet F** becomes perfectly watertight and ensures an effective consolidation of the structure.

#### Consumption

in the absence of water, approximately 1.1 kg/dm³ of cavity to be filled; in the presence of water, approximately 0.3 kg/dm3 of cavity to be filled.

### Packaging

22.5 kg (A+B).



### Foamjet T



High viscosity ultra rapid setting two-component polyurethane resin to be injected for consolidating and waterproofing structural elements subject to high pressure water

Use Foamiet T to waterproof cracked concrete and masonry structures such as tunnels, shafts, dams, canals, bulkheads, flooring or beds subject to strong water ingress. Foamjet T is a two-component halogen-free resin that must be used with special machinery that is able to measure and mix Part A with Part B in a 1:1 ratio by volume.

Thanks to its high fluidity, **Foamjet T** can penetrate through fissures of even several hundred microns and seal the cracks even if they are subject to water infiltrations.

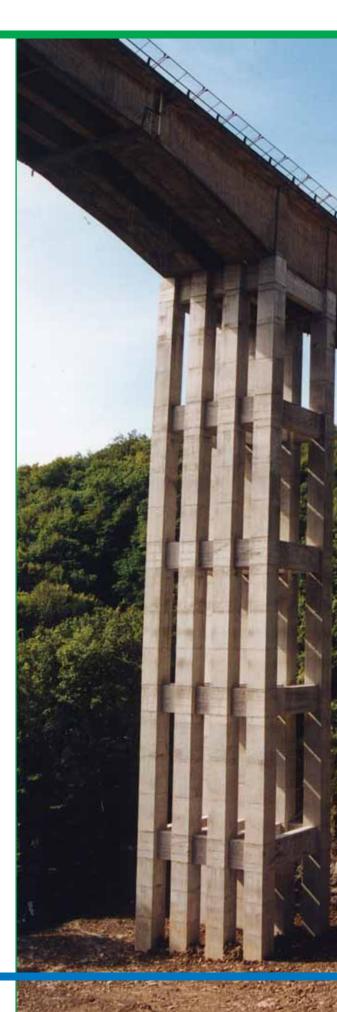
Once set, **Foamjet T** becomes perfectly watertight and ensures an effective consolidation of the treated structure.

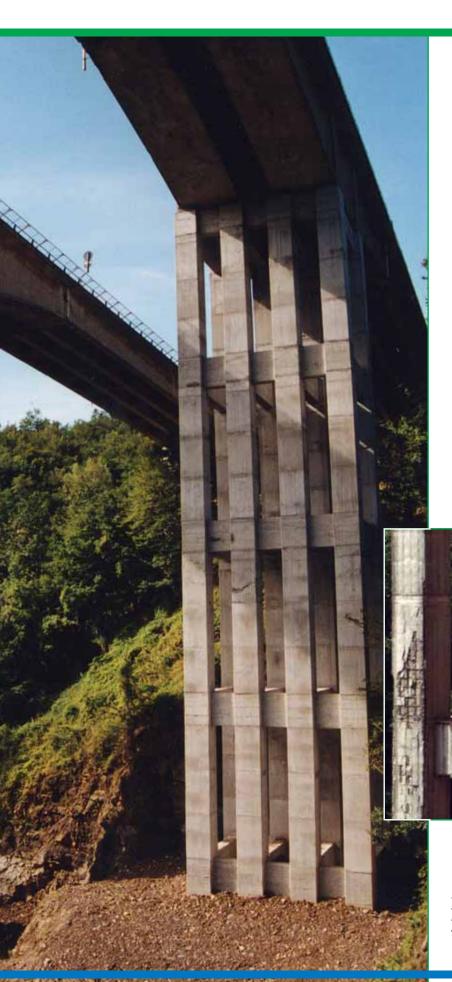
#### Consumption

in the absence of water, approximately 1.1 kg/dm³ of cavity to be filled; in the presence of water, approximately 0.3 kg/dm3 of cavity to be filled.

# Packaging 22.6 kg (A+B).







### Stabilcem



Very fluid expanding cementitious binder for the preparation of injection

slurries, mortars and concrete. Use Stabilcem to prepare shrinkage-compensated injection slurries, mortars

and concrete.

Stabilcem can be used for filling cavities and cracks into rock and brickwork and for filling internal porosity of concrete.

Due to its characteristics, self-levelling concretes obtained with **Stabilcem** can be pumped under high mechanical pressure without any risk of segregation.

Mix Stabilcem with appropriately graded

aggregate, depending on the type of work to be carried out, and then add water. Mix until completely homogeneous, then apply the product.

To improve open-air curing and further reduce shrinkage, **Stabilcem** can be mixed with 5 to 8 l/m³ of **Mapecure SRA**, curing agent.

#### Consumption

- injection slurry: 1.6 kg/dm³ of cavity to be filled; mortar: 350-550 kg/m³; concrete: 300-400 kg/m³.

#### **Packaging**

20 kg bags.



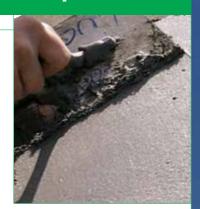
Settefonti viaduct - A1 motorway, the Florence - Bologna stretch - Italy Reparation of the viaduct pillars with: MAPEFER, STABILCEM, MAPEGROUT T60, ANTIFREEZE S, MAPECURE E



# **Smoothing concrete surfaces and renders**



### Planitop 100



Light grey, rapid setting, fine mortar for repairing and smoothing concrete and renders.

and renders.

Planitop 100 is used for localized repairs of precast concrete elements damaged by movement and for adjusting superficial defects such as honeycombs and macro-porosity.

macro-porosity.

Furthermore, **Planitop 100** can be used for levelling renders and smoothing concrete repaired with products from the **Mapegrout** range.

By mixing **Planitop 100** with water, a mortar is obtained that is easily applied by trowel to clean sound surfaces that have previously been saturated with water, up to a maximum thickness of 3 mm per coat. For thicknesses greater that 5 mm the addition of 30% of sand graded between 1 and 2 mm is recommended. Application: trowel or float.

Planitop 100 meets the requirements of EN 1504-2 standards, in compliance with MC principle, for concrete protection.

#### Consumption

- 1.3 kg/m² per mm of thickness if used neat;
- 1.0 kg/m² per mm of thickness if used with 30% of 2 mm graded sand.

#### **Packaging**

25 kg bags.







#### Planitop 200



One-component cementitious mortar with high bonding strength for interior and exterior smoothing of rough surfaces and for finishing walls (fine texture effect).

Planitop 200 is used to smooth slightly rough outdoor and indoor walls that will be covered with ceramics or paint.
Planitop 200 is especially suitable to smooth defects in old coloured cementitious renders, lime and cement based painted renders, wooden substrates, gypsum board (after applying Primer G), concrete and old mosaic coverings as long as well anchored.

as well anchored.

By mixing **Planitop 200** with 20-23% clean water (5-5.75 l for a 25 kg bag) a textured mortar is obtained that is easily applied by trowel. Thickness up to 3 mm per layer can be obtained. Once applied, the product can be finished with a moist sponge float and then decorated and protected with **Silexcolor Paint**, **Silexcolor Tonachino**, **Silancolor Paint** or **Elastocolor Paint**. **Planitop 200** meets the requirements of EN 1504-2 standards, in compliance with MC principle, for concrete protection.

#### Consumption

1.3 kg/m² per mm of thickness.

#### Packaging 25 kg bags.

25 kg bags.







#### **Monofinish**



One-component normal setting cementitious mortar for smoothing concrete and cementitious renders.

Monofinish is recommended for smoothing surface imperfections of concrete pours and smoothing the surface of concrete repaired with mortars from the Mapegrout product line.

Monofinish mixed with clean water forms a plastic, easily trowellable mortar to be applied on substrates that are solid, compact, and free of oils, form release agents or other deleterious substances. Any old paint must be completely removed. Before applying Monofinish the surface must be completely saturated with water. Pour a 22 kg bag of Monofinish into 4-4.2 litres of clean water.

Monofinish can be used for thicknesses

Monofinish can be used for thicknesses up to 2 to 3 mm per coat. Monofinish can be finished with a damp sponge float and then painted with Elastocolor Paint or other paints for outdoor use.

Monofinish meets the minimum requirements of EN 1504-3 standards for R2-class non structural mortars and the requirements of EN 1504-2 standards, in compliance with MC principle, for concrete protection.

#### Consumption

1.4 kg/m2 per mm of thickness.

#### Packaging

22 kg bags.









### Mapefinish



Two-component cementitious mortar for finishing concrete surfaces.

Mapefinish is used to level small imperfections of poured concrete and to

smooth surfaces after repairs.

Mapefinish is suitable for surfaces
permanently in contact with drinking water,
as long as after its application, it is washed

repeatedly with water at +40°C.

Mapefinish is supplied as two
pre-measured components which must
be mixed without adding water or other
ingredients.

The mortar is applied with a trowel to a clean, sound surface which must be thoroughly soaked with water beforehand. **Mapefinish** can be applied up to 2-3 mm thick in a single coat.

Finish with a flat trowel or a plastering float a few minutes after application.

Mapefinish meets the minimum requirements of EN 1504-3 standards for R2-class non structural mortars and the requirements of EN 1504-2 standards, in compliance with MC principle, for concrete protection.

#### Consumption

2 kg/m² per mm of thickness.

#### Packaging

24 kg bags; 6 kg drums.



# Mapelastic



Two-component flexible cementitious mortar for waterproof protection of concrete, swimming-pools and balconies.

Use **Mapelastic** to 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 premeasured 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 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 Fibreglass Mesh.

To further improve both elongation at failure and crack bridging of Mapelastic, we recommend inserting Mapetex Sel, macroholed non-woven polypropylene fabric. Application: trowel or rendering machine. Mapelastic meets the requirements of EN 1504-2 standards, in compliance with PI, MC and IR and principle, for concrete protection.

#### Consumption

- 1.7 kg/m² per mm of thickness if applied with a trowel;
- 2.2 kg/m<sup>2</sup> per mm of thickness if sprayed.

#### **Packaging**

24 kg bags + 8 kg drums.



Tesco multi-functional centre - Olomuc - Czech Republic Reparation and protection of the building façade with: MAPEGROUT THIXOTROPIC, EPORIP, PLANITOP 100, MAPELASTIC, ELASTOCOLOR PAINT



Martin Luther King school - Cologno Monzese - Italy Reparation and protection of the school façade with: MAPEFER 1K, MAPEGROUT T40, MAPELASTIC, ELASTOCOLOR PAINT

#### **Mapelastic Smart**



Two-component, high-flexibility cementitious mortar, applied by brush or by roller, for waterproofing concrete surfaces such as foundations, retaining walls, balconies, terraces, basins and swimming pools, and for protection against the penetration of aggressive agents.

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

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.

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 **Fibreglass Mesh** 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.

#### Consumption

approximately 1.6 kg/m² per mm of thickness, if applied by brush or roller; approximately 2.2 kg/m² per mm of thickness, if applied by spray.

Packaging 20 kg bags + 10 kg cans.







#### Planitop 520



Lime-cement based smooth finishing compound for interior and exterior renders, to be applied "fresh on fresh" up to 3 mm thick.

Planitop 520 is used as a smooth finishing of cement-lime mortar or prepacked "fresh' renders for interiors and exteriors on walls and ceilings, before painting or applying thin coloured coatings.

Thanks to its special composition, the finishing obtained by mixing Planitop 520 with water has a high bonding strength and is easy to apply with a metal trowel even on coarse renders. Furthermore, it can be quickly finished with a sponge float. Planitop 520 can be applied up to 3 mm

thick with a metal trowel using the "fresh on fresh" method and is avaiable in white and

#### Consumption

 $1.35 \text{ kg/m}^2$  per mm of thickness.

#### **Packaging**

25 kg bags.



#### Planitop 530



Smooth, lime and cement-based levelling compound for "fresh" or "cured" internal and external render, applied at a thickness of up to 3 mm. Planitop 530 is used to achieve a smooth finish on "fresh" or "cured" lime-mortar or pre-blended internal and external render on walls or ceilings, before painting or application of thin coloured finishes Thanks to its special composition, the smoothing compound obtained by mixing Planitop 530 with water has high bonding strength and is characterised by its excellent free-flowing properties, which makes it easy to apply with a metal trowel, and where required, quick to finish off using a sponge float.

Planitop 530 may be applied at a thickness of up to 3 mm for each single coat, and is available in either white or grey.

#### Consumption

1.25 kg/m² per mm of thickness.

#### **Packaging**

25 kg bags.





# Planitop 540



Cement-based smooth finishing compound for both interior and exterior fresh or "cured" renders and for concrete substrates; can be applied up to 3 mm thick.

Planitop 540 is used for finishing rough renders and concrete elements in interiors and exteriors before painting.

This product is also suitable for smooth finishing of fresh or cured renders or slightly rough concrete walls, for levelling pedralles soffits and precast concrete elements such as panels, columns and beams.

Thanks to its special composition, the finishing obtained by mixing **Planitop 540** with water, is easily applied using a flat trowel and finished with a sponge float. Once hardened, it has a very high bonding strength.

Planitop 540 can be applied maximum 3 mm thick per coat and is available in white and grey.

#### Consumption

1.4 kg/m² per mm of thickness.

Packaging 25 kg bags.



### Planitop 560



White lime-cement based finishing compound for very smooth finishing of both fresh and cured interior and exterior cementitious renders and concrete surfaces; can be applied from 0 to 3 mm thick.

Planitop 560 is used for smoothing fresh

Planitop 560 is used for smoothing fresh or cured, interior and exterior cement-lime mortar or prepacked fresh renders before painting or applying floor or ceiling coloured coatings. It can also be used for smoothing renders in rooms where wall paper or light-weight textile coverings will be applied. Planitop 560 can also be used for smoothing cracks and chips on old concrete walls, as fine finishing of coarse grained levelling and for levelling predalles soffits.

Thanks to its special composition and fine texture, the finishing obtained by mixing **Planitop 560** with water has a high bonding strength and is easy to apply with a flat metal trowel.

**Planitop 560** can be applied between 0 and 3 mm thick per coat.

#### Consumption

1.1 kg/m² per mm of thickness.

#### Packaging

20 kg bags.



### Planitop 580



White lime and gypsum-based levelling compound for smoothing off "dry", cured internal gypsum, anhydrite or lime/cement-based renders.

Planitop 580 is used for smoothing off internal traditional or pre-blended "dry", cured renders, or pre-blended or limemortar renders, before applying paint or thin layers of mineral or synthetic finishing coats.

**Planitop 580** may also be used to obtain a smooth, finishing layer on coarse-grained render and for levelling off surfaces in gypsum, cellular cement blocks or in sandwich blocks.

The special composition and extremely fine structure, which is obtained by mixing **Planitop 580** with water, gives the finishing layer high bonding properties and makes it very easy to spread with a smooth, metallic trowel, which also helps with the finishing operations.

Planitop 580 may be applied at a thickness of up to 3 mm for each single coat.

#### Consumption

approx.  $0.80 \text{ kg/m}^2$  (per mm of thickness).

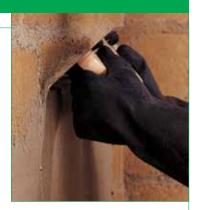
#### **Packaging**

20 kg bags.





#### **Planitop HDM**



Two-component, high-ductility mortar with a pozzolanic reaction used for reinforcing masonry structures in conjunction with Mapegrid G 120 or Mapegrid G 220 at a thickness of 6 mm and for smoothing and levelling surfaces in concrete, stone and tuff.
Planitop HDM is used in conjunction with Mapegrid G 120 or Mapegrid G 220 (a special mesh made from primed fibreglass) to reinforce masonry structures and to even out surfaces in concrete, stone, brick and tuff. Thanks to its high content of synthetic resin, **Planitop HDM** has high bonding strength and, once hardened, forms a tough, compact, layer which is impermeable to water and harmful gases present in the atmosphere and is resistant to freeze-thaw cycles. Planitop HDM is supplied in the form of two predosed components, which must be mixed together without adding either water or any other ingredient. The mortar obtained is applied in a single coat at a thickness of up to 6 mm using a trowel, on surfaces which must be clean, solid and saturated beforehand with water or in case of very absorbent surfaces, primed with **Primer G**.
The surface is then smoothed over using a flat trowel or sponge float a few minutes

after being applied.

Planitop HDM meets the minimum requirements of EN 1504-3 for R2-class non structural mortars and the requirements of EN 1504-2, in compliance with MC principle, for concrete protection

#### Consumption

1.8 kg/m<sup>2</sup> per mm of thickness.

#### **Packaging**

24 kg bags + 6.5 kg tanks.



### Planitop HDM Maxi



Two-component, high-ductility cementitious mortar with a pozzolanic-reaction binder base, applied at a maximum thickness of 25 mm, for levelling off stone, brick and tuff substrates before laying Mapegrid G 120 or Mapegrid G 220. Planitop HDM Maxi may be used on its own as a filler mortar or to repair brickwork, stone and tuff ceilings; further advantages are gained if used in conjunction with Mapegrid G 120 or Mapegrid G 220, a special, alkali-resistant, primed glass fibre mesh for structural reinforcement applications.

Thanks to its high content of synthetic resin, **Planitop HDM Maxi** has high bonding strength and, what is more, once hardened, forms a tough, compact, layer which is impermeable to water and harmful gases present in the atmosphere and is resistant to freeze-thaw cycles.

Planitop HDM Maxi is supplied in kits of two pre-dosed components, which must be mixed together without adding either water or any other ingredient. Once mixed, apply the mortar by trowel on the surface to be repaired and levelled off; the surface must be perfectly clean, solid and saturated beforehand with water or in

case of very absorbent surfaces, primed with  $\mbox{\bf Primer}~\mbox{\bf G}.$ 

Maximum applicable thickness per layer: 25 mm.

Apply the product using a flat trowel, then smooth over using a sponge float before it starts setting

Planitop HDM Maxi meets the minimum requirements of EN 1504-3 for R2-class non structural mortars.

#### Consumption

1.85 kg/m<sup>2</sup> per mm of thickness.

25 kg bags + 6.75 kg tanks.







# **Adesilex FIS13**



Water dispersion adhesive for thermal insulation systems.

Adesilex FIS13 is an adhesive, based on synthetic resins in water dispersion modified with selected aggregate and special additives. Mixed with cement, it forms a compact mortar with excellent bonding strength on both normal renders and on the foam panels used for thermal insulation systems.

Adesilex FIS13 can be used for bonding polyurethane or polystyrene foam insulation panels on walls of external facades and for levelling surfaces of insulation systems. Mix the Adesilex FIS13 with cement in the ratio of 1: 0.7 to 0.8, stirring thoroughly to prevent the formation of lumps, until a thick

paste is obtained.
This mix will hold the polystyrene foam panels as soon as they are positioned.

#### Consumption

- bonding insulation panels: 1.8-2.4 kg/m²; - total bonding of insulation panels with notched trowel n° 10: 2.7-3.2 kg/m²;
- smoothing compound: 1.0-1.2 kg/m².

Packaging 25 kg and 15 kg drums.





# Elastocolor Rasante One-component fibre-reinforced elastomeric filling undercoat that can be applied on renders and very fine fissured textured coatings as long as they are coherent and primed. Elastocolor Rasante may be applied as it is with a trowel or diluted 5 to 10% with water and applied with a brush, fur roller, or cell-like sponge. After drying Elastocolor Rasante forms a flexible resistant layer that follows the expansion of the substrates. Elastocolor Rasante can be an undercoat setting for reinforcement nets when there are many and pronounced cracks. Elastocolor Rasante can be used as an intermediate coat after having applied Mapelastic before finishing with Elastocolor Paint. Elastocolor Rasante can be admixed with 0.1 to 0.3 mm washed sand up to 30% by weight to increase the filling when the substrate is particularly uneven. Consumption 400-700 g/m<sup>2</sup>. **Packaging** 20 kg drums. EN 1504-2 EN 1504-2

Reale Mutua Insurance company - Milan - Italy Reparation and protection of the building façade with: MAPEFER, MAPEGROUT BM, MALECH, ELASTOCOLOR RASANTE

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#### Elastocolor Rasante SF



Trowelable ready-to-use, one-component, fibre reinforced elastomeric undercoat with high filling properties and admixed with fine sand.

Trowelable intermediate filling undercoat to be used as it is during the **Elastocolor** cycle. **Elastocolor Rasante SF** is especially suitable to be used to install a reinforcing mesh, such as **Elastocolor Net**, and improves the smoothness of the substrate and flexibility of **Elastocolor Paint** finishing.

Elastocolor Rasante SF is an elastomeric intermediate undercoat with high filling properties and leaves a rustic finish. It levels uneven parts of the substrate before painting with elastomeric Elastocolor Paint.

Elastocolor Rasante SF can also be used as a flexible filling finish such as a quartz based paint if applied neat or diluted 5 to 10% water with a trowel, cell-like sponge roller or short-hair roller.

The product is ready-to-use and is applied with a metal trowel. The product may also be applied with a brush or roller. To obtain different textured "orange peel" effects, Elastocolor Rasante SF should be applied with a cell-like sponge roller either neat or diluted 5 to 10% with water, depending on the desired effect. If more coats are needed, wait at least 24 hours

# between coats. Consumption

- trowel: 700 to 800 g/m² per coat; - roller or brush: 300 to 500 g/m² per coat;
- roller or brush: 300 to 500 g/m² per coat
   spray: 0.8-1 kg/m² per coat.

The consumption is merely indicative, and depends on the roughness of the surface and type of application.

#### Packaging

20 kg drums.



#### **Elastocolor Net**



Alkali-resistant fibreglass mesh for reinforcing Elastocolor Rasante and Elastocolor Rasante SF. Reinforcement for:

- Elastocolor Rasante and Elastocolor Rasante SF applied on interior and exterior micro-cracked cementitious structures;
- Elastocolor Rasante and Elastocolor Rasante SF applied next to cracks less than 1 mm.

Apply a 2-3 mm coat of Elastocolor Rasante or Elastocolor Rasante SF on the surface with a notched trowel and lay Elastocolor Net over the surface. Use a flat metal float to evenly spread out the product and to completely cover Elastocolor Net. After 24 hours, apply a second coat of Elastocolor Rasante or Elastocolor Rasante SF. Fabric next to Elastocolor Net must overlap 5 cm around the edges.

#### Packaging

Elastocolor Net is supplied in 50 m long and 1 m wide rolls.



# Structural bonding with epoxy resins



### **Adesilex PG2**



Thixotropic epoxy adhesive with extended workability.

Adesilex PG2 is a two-component epoxy resin based product with special hardeners, selected fine aggregates and special additives.

Adesilex PG2 is recommended for structural strengthening including bonding steel plates to concrete, rigid structural bonding of precast concrete elements and sealing large cracks.

The product's extended workability makes it especially recommended for applications at temperatures above +20°C.

Pour component B into component A and mix with a low speed electric stirrer until completely even.

#### Consumption

1.6 kg/m² per mm of thickness.

#### Packaging

6 kg (A+B).



### **Adesilex PG4**



Two-component, thixotropic, epoxy adhesive with modified-rheology for bonding Mapeband, Mapeband TPE, PVC braces, Hypalon and for structural bonding.

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 stirrer until a homogenous mix is obtained.

#### Consumption

1.55 kg/ $\dot{m^2}$  per mm of thickness.

#### **Packaging**

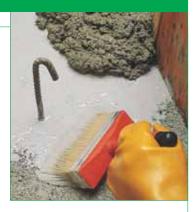
6 kg (A+B); 30 kg (A+B).



Křímov Bridge - Kroměříž - Czech Republic Structural bonding with: ADESILEX PG1



### **Eporip**



# Two-component epoxy based adhesive for cold joints and monolithic sealing

of cracks in screeds.

Eporip is used to bond "fresh" concrete to old concrete, Mapecem screeds or Ultratop flooring with a cementitious substrate.

It can also be used, by pouring, to seal cracks in floors and to make rigid waterproof joints.

**Eporip** is supplied as two pre-measured components which must be mixed together until completely homogeneous.

Eporip has low viscosity and is easily

applied with a brush both horizontally and vertically onto perfectly clean and solid substrates. Concrete should be poured within 3 hours after applying **Eporip** (at temperatures around +20°C).

#### Consumption

- cold joints: 0.5-2 kg/m<sup>2</sup>;
- sealing of cracks: 1.35 kg/dm3 of cavity to

#### Packaging

10 kg (A+B) and 2 kg (A+B).



### **Epojet**



#### Two-component superfluid epoxy resin for injection.

Epojet is used for monolithic repair of structures which have cracked due to overloading, impact, earthquakes etc; it is also used for bonding and structural strengthening by low pressure injection and for sealing cracks in cement screeds. Epojet is a solvent-free epoxy adhesive,

consisting of two pre-measured components to be mixed together with an electric stirrer prior to use. After mixing, **Epojet** becomes a low viscosity liquid ideal for injection.

Epojet polymerizes without shrinkage and is waterproof after hardening. For monolithic repair of degraded structures, inject Epojet into the cracks with a pump. Horizontal cracks in screeds can be sealed simply by pouring **Epojet** directly into them.

#### Consumption

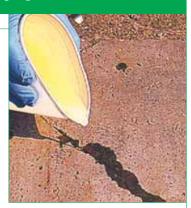
- sealing of cracks: 1.1 kg/dm³ of cavity to be filled;
- bonding concrete-steel:
- 1.1 kg/m² per mm of thickness.

#### Packaging

4 kg (A+B) and 2.5 kg (A+B).



### **Epojet LV**



#### Two-component very low viscosity epoxy resin for injection in micro-

**Epojet LV** is used to attribute the monolithic nature to cracked structures and for bonding and structural strengthening of concrete and masonry elements by low pressure and/or at atmosphere pressure injection. The product can be used for sealing cracks in cementitious screeds. Epojet LV is a solvent-free, low viscosity, two-component epoxy adhesive. After mixing, **Epojet LV** becomes and extremely fluid liquid ideal for injection.

**Epojet LV** polymerises without shrinkage and is waterproof after hardening. For monolithic repair of damaged structures, inject Epojet LV into the cracks with a low pressure or at atmosphere pressure pump. Horizontal cracks in screeds can be sealed by pouring **Epojet LV** directly into them.

#### Consumption

- sealing cracks:
  1.1 kg/dm³ of cavity to be filled;
  bonding concrete-steel:
- 1.1 kg/m² per mm of thickness.

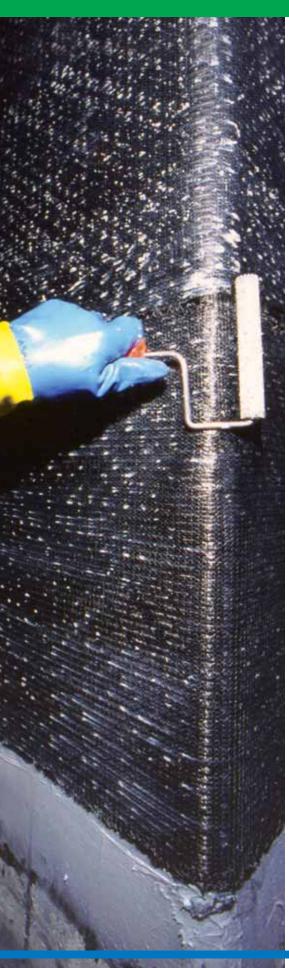
#### Packaging

4 kg (A+B) and 2.5 kg (A+B).



#### STRUCTURAL REINFORCEMENT WITH FRP

# Carbon and glass fibre plates, bars, pipes and fabrics



#### Carbotube



Pultruse tube in carbon fibre impregnated with epoxy resin, used together with Ø 23 mm injectors to carry out "reinforcement tacking". Carbotube is a range of pultruse tubes in carbon fibre impregnated with epoxy resin, which have a high tensile strength and modulus of elasticity of 170,000 N/mm². It is used to carry out "reinforcement tacking" for repairing, reinforcing and upgrading of structures in stone, brickwork

Carbotube is applied using Ø 23 mm injectors as a reinforcement treatment, to consolidate vaulted structures and brickwork, stone and tuff facing walls together with epoxy resin or fluid grout. It is also used for structural consolidation of damaged or cracked elements caused by subsidence or seismic activity. The outside diameter of **Carbotube** is 10 mm, while the inside diameter is 8mm. The product may be used as is for injection purposes or for structural consolidation operations, or together with the fabrics from the **MapeWrap** range in order to anchor it on more strongly, especially when flexural or shear strengthening operations are carried out.

Packaging boxes of 10 2 m-long tubes.

# Injectors Ø 23



Plastic injectors with a non-return valve, used together with Carbotube to carry out "reinforcement tacking".

After cutting Carbotube to the required length, remove the protective plastic film. Fit the injector onto the **Carbotube** by applying a light pressure. Insert the **Carbotube** in the hole previously made in the element to be consolidated, and inject epoxy resin or fluid grout into the hole. Characteristics of the injectors: Outside diameter: 23 mm. Length: 80 mm. Diameter of injection hole: 5 mm.

Packaging boxes of 100 injectors.



### **Epojet**



#### Two-component superfluid epoxy resin for injection.

Epojet is used for monolithic repair of structures which have cracked due to overloading, impact, earthquakes etc; it is also used for bonding and structural strengthening by low pressure injection and for sealing cracks in cement screeds. Epojet is a solvent-free epoxy adhesive, consisting of two pre-measured components to be mixed together with an electric stirrer prior to use. After mixing, **Epojet** becomes a low viscosity liquid ideal for injection.

Epojet polymerizes without shrinkage and is waterproof after hardening. For monolithic repair of degraded structures, inject Epojet into the cracks with a pump. Horizontal cracks in screeds can be sealed simply by pouring Epojet directly into them.

#### Consumption

- sealing of cracks: 1.1 kg/dm³ of cavity to be filled;
- bonding concrete-steel:
- 1.1 kg/m² per mm of thickness.

#### **Packaging**

4 kg (A+B) and 2.5 kg (A+B).



### **Maperod C**



Pultruse bars in high-strength carbon fibre, used for strengthening reinforced concrete structural elements and masonry.

Maperod C is a range of pultruse rods in carbon fibre, pre-impregnated in epoxy resin, which have a high tensile strength and modulus of elasticity of 155,000 N/mm². After removing the protective plastic film, they are used to carry out structural repairs and strengthening of elements in reinforced concrete, brickwork, stone or tuff damaged by either physical-mechanical stresses or natural events. Maperod C may be used together with the fabrics from the MapeWrap range in order to anchor it on more strongly, especially when flexural or shear strengthening operations are carried out.

Packaging boxes of 10 2m-long rods.

### **Maperod G**



Pultruse bars in fibreglass, used for strengthening reinforced concrete structural elements and masonry.

Maperod G is a range of pultruse rods in improved-adherence fibreglass impregnated with modified epoxy ethyl vinyl, which have a modulus of elasticity of 40,800 N/mm². They are used to carry out structural repairs and strengthening of elements in reinforced concrete, brickwork, stone or tuff damaged by either physical mechanical stresses or natural events.

Maperod G may be used together with the fabrics from the MapeWrap range in order to anchor it on more strongly, especially when flexural or shear strengthening operations are carried out.

Packaging boxes of 10 3 m-long rods.

#### **Carboplate**



Pultrused carbon fibre plates pre-impregnated in epoxy resin,
protected by a double film of plastic.
Carboplate is a range of pultrused carbon
fibre plates, pre-impregnated in epoxy

resin, with high resistance and flexibility, for plating prestressed reinforced concrete conglomerate and steel structures.

Carboplate can replace conventional steel sheets (béton plaqué) that are used for

Carboplate is used for the repair and static upgrade of beams and under-dimensioned slabs for flexural resistance, for the repair of structures damaged by fire and seismic events, for the reinforcement of viaduct slabs consequent to an increase of static and/or dynamic loads, of industrial and/or commercial structures consequent to loads brought on by equipment and machinery, of carriageable ramps in residential and industrial buildings.

Carboplate is placed using Adesilex PG1, Adesilex PG1 Rapido or Adesilex PG2 structural adhesives provided that the substrate is impregnated by using MapeWrap Primer 1 beforehand.

#### **Packaging**

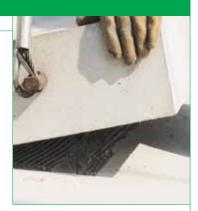
Carton boxes each containing one 25 m

Carboplate is available in 3 modulus of elasticity (170,000, 200,000 and 250,000 N/mm²), each having 3 widths (50, 100 and 150 mm):

- Carboplate E 170/50/1.4
- (25 m x 50 mm x 1.4 mm rolls). Carboplate E 170/100/1.4
- (25 m x 100 mm x 1.4 mm rolls). **Carboplate E** 170/150/1.4 (25 m x 150 mm x 1.4 mm rolls).
- **Carboplate E** 200/50/1.4
- (25 m x 50 mm x 1.4 mm rolls). - Carboplate E 200/100/1.4
- (25 m x 100 mm x 1.4 mm rolls).
- Carboplate E 200/150/1.4 (25 m x 150 mm x 1.4 mm rolls).
- Carboplate E 250/50/1.4
- (25 m x 50 mm x 1.4 mm rolls). Carboplate E 250/100/1.4
- (25 m x 100 mm x 1.4 mm rolls).
- Carboplate E 250/150/1.4 (25 m x 150 mm x 1.4 mm rolls).



#### **Adesilex PG1**



#### Thixotropic epoxy adhesive for structural bonding.

Adesilex PG1 is a two-component epoxy resin based product with special hardeners, selected fine aggregates and special additives

Adesilex PG1 hardens in a few hours by chemical reaction alone, without shrinkage, becoming a compound with exceptional adhesion and mechanical strength.

Adesilex PG1 can be used for strengthening structural elements such as carbon fibre plates, bonding steel plates precast concrete elements and for sealing

large cracks.

Adesilex PG1 can also be used to repair the edges of joints in industrial floors subject to heavy traffic.

Pour component B (white) into component A (grey) and mix with a low speed electric stirrer until completely even, i.e. a uniform grey colour.

#### Consumption

1.55 kg/ $\dot{m^2}$  per mm of thickness.

#### **Packaging**

6 kg (A+B) and 2 kg (A+B).



#### **Adesilex PG1** Rapido



#### Two-component, thixotropic quick-hardening epoxy adhesive

for structural bonds.

Adesilex PG1 Rapido is a two-component adhesive composed of an epoxy resin base, special catalysts,

fine-grained selected aggregates and special admixes. Adesilex PG1 Rapido hardens in approximately 1 hour (at +23°C) by chemical reaction and without shrinking, and becomes a composite material with

exceptional mechanical strength.

Adesilex PG1 Rapido may be used to strengthen structures by bonding steel and carbon-laminate sheets, such as Carboplate, and pre-fabricated concrete elements, for sealing large cracks and for

fixing injection tubes in place.

Adesilex PG1 Rapido may also be used for repairing the edges of joints in industrial floors subject to intense traffic. 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 (uniform grey colour).

#### Consumption

1.55 kg/m2 per mm of thickness.

#### **Packaging**

6 kg (A+B).





#### **Adesilex PG2**



#### Thixotropic epoxy adhesive with extended workability.

Adesilex PG2 is a two-component epoxy resin based product with special hardeners. selected fine aggregate and special additives

Adesilex PG2 is used for structural strengthening such as bonding Carboplate carbon fibre plates, steel plates, precast concrete elements and sealing cracks larger than 1 mm.

The product's extended workability makes it especially recommended for applications at temperatures above +20°C.

Pour Part B into Part A and mix with a low speed electric stirrer until completely even.

#### Consumption

1.6 kg/m² per mm of thickness.

#### **Packaging** 6 kg (A+B).



# MapeWrap C UNI-AX and MapeWrap C UNI-AX HM



High strength uni-directional continuous carbon fibre fabric with high and very high moduls of elasticity.

MapeWrap C UNI-AX and MapeWrap C UNI-AX HM are uni-directional continuous carbon fibre fabrics continuous carbon fibre fabrics characterised by high (230,000 N/mm²) and very high (390,000 N/mm²) modulus of elasticity and high tensile strength.

The fabrics are suitable for repairing reinforced concrete structures damaged by physical-mechanical action, for confinement of axial loaded concrete elements or concrete elements subjected to compressive and bending stress and for seismic strengthening in earthquake areas. They can be placed using two different methods: the wet system and the dry system using a specific and complete range of epoxy resins made up of MapeWrap Primer 1 to prime the substrate, MapeWrap 11 or MapeWrap 12 for smoothing, MapeWrap 21 (wet system) and MapeWrap 31 (dry system) for the

#### **Packaging**

boxes containing one 50 m long roll.

MapeWrap C UNI-AX and MapeWrap C UNI-AX HM are available in two basic weights (300 and 600 g/m²) and each type with different widths (10, 20 and 40 cm):

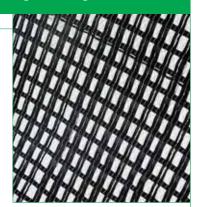
– MapeWrap C UNI-AX 300/10:

impregnation of the fabric.

- 50 m x 10 cm rolls (300 g/m²); **MapeWrap C UNI-AX** 300/20: 50 m x 20 cm rolls (300 g/m²);
- MapeWrap C UNI-AX 300/40:
- 50 m x 40 cm rolls (300 g/m²); MapeWrap C UNI-AX 600/10:
- 50 m x 10 cm rolls (600 g/m²); MapeWrap C UNI-AX 600/20:
- 50 m x 20 cm rolls (600 g/m²);
- MapeWrap C UNI-AX 600/40: 50 m x 40 cm rolls (600 g/m<sup>2</sup>).



### MapeWrap C BI-AX



#### **Balanced high strength bidirectional** carbon fibre fabric.

MapeWrap C BI-AX is a bidirectional carbon fibre fabric characterised by a high modulus of elasticity and very high tensile

strength.

MapeWrap C BI-AX is suitable for repairing concrete structures and to improve flexural and shear strength of reinforced concrete structures damaged by physical-mechanical action, for confinement of axial loaded concrete elements or concrete elements subjected to compressive and bending stress and for seismic strengthening in earthquake areas.

MapeWrap C BI-AX can be placed using two different methods: the wet system and the dry system using a specific and complete range of epoxy resins composed of MapeWrap Primer 1 to prime the substrate, MapeWrap 11 or MapeWrap 12 for smoothing, MapeWrap 21 (wet system) and MapeWrap 31 (dry system) for the impregnation of the fabric.

#### **Packaging**

boxes containing one 50 m long roll.
The fabric is available in two basic weights and each type with different widths:

- MapeWrap C BI-AX 230/20:
50 m x 20 cm rolls (230 g/m²);

- MapeWrap C BI-AX 230/40:
- 50 m x 40 cm rolls (230 g/m²); MapeWrap C BI-AX 360/20:
- 50 m x 20 cm rolls (360 g/m²); MapeWrap C BI-AX 360/40:
- 50 m x 40 cm rolls (360 g/m<sup>2</sup>).

