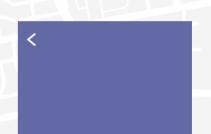






For every local authority, the quality of their care for the local territory is expressed first and foremost through how they respect and promote urban spaces. Mapei is a point of reference for architects, engineers and specialists who are called on to administer their heritage of urban features with a range of targeted solutions.



Materials and products at the cutting-edge for their versatility and performance properties that combine aesthetics, practicality and durability. Products in perfect harmony with the requirements of current standards, providing safety that only a large

company like Mapei can offer.



# Mapei solutions in urban areas.

### Mapestone Joint Mapestone System

\_04 >

Modern road surfaces in stone

In compliance with UNI 11714-1:2018



### Mapei Color Paving®

\_12 >

Architectural exposed aggregate concrete surfaces



### **Mapecoat TNS**

Systems for resin-based flooring in urban areas

20





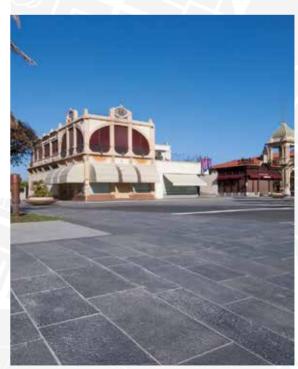
# Mapegrout Mape-Asphalt Repair 0/8 Planiseal Traffic Coat EU

Rapid solutions for maintenance work, in industrial environments and urban areas

38 >

# Ceramic and natural stone surfaces

Solutions for installing ceramics and natural stone in urban areas



Modern road surfaces in stone

In compliance with UNI 11714-1:2018











# Mapestone System Mapestone Joint

#### **Mapestone System**

Monolithic waterproofing paving Cementitious system with very high mechanical performance properties, is the optimum solution for creating surfaces suitable for vehicles from any type of stone (blocks, cubes and compact slabs).

#### **Mapestone Joint**

Flexible and pervious paving Solvent-free, non-flammable polyurethane resin used to create previous, sound-absorbing, elastic, freeze-resistant paving made from slabs to withstand moderate levels of vehicle traffic or from paving blocks, binderi bricks and cobblestones to withstands more intense levels of vehicle traffic.





# THE CAUSES OF DETERIORATION



#### **MECHANICAL STRESSES**

The constant passage of cars and heavy vehicles generate compressive stress (the weight of the vehicles themselves) and tensile stress (manoeuvres carried out by vehicles) that cause failure in weak and irregular substrates on which the blocks of stone that make up the road surface have been installed.



# DE-ICING SALTS FREEZE/THAW CYCLES AND SEA SALTS

There is a contrast between the high amount of heat generated when using de-icing salts (calcium and sodium chloride) and brusque cooling down due to low surrounding temperatures. This alternation in temperatures, combined with freeze/thaw cycles (with stresses caused by water cooling down and turning into ice), causes contraction, expansion and crumbling, which in turn deteriorate the joints and substrate. The action of chlorides in the sea-salt accelerates deterioration in porous cementitious matrixes.



#### **DESIGN AND INSTALLATION**

Modern stone road surfaces must be developed and then designed as structures that are meant TO LAST over the years, similar to any other vertical structure. With this in mind, choosing the most suitable installation system is fundamental. Also, using only expert workers qualified in the installation of stone is a key factor to ensure that this type of system is installed correctly. If unsuitable installation systems or methods are chosen, the service life of stone road surfaces will be shortened.



# Modern road surfaces in stone In compliance with UNI 11714-1:2018













# MAPEI SOLUTIONS

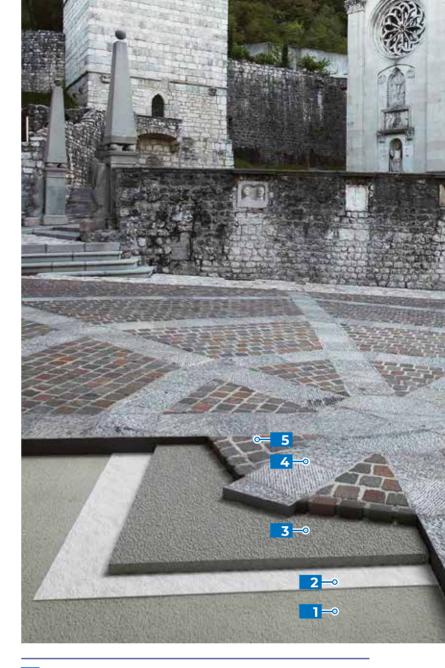
## Mapestone System

P4 P5 P6 P7 P8 P9

The monolithic **Mapestone System** represents a "turnkey" solution in compliance with UNI 11714-1:2018 standard to obtain durable. long-lasting work resistant to de-icing salts, freeze-thaw cycles and to sea water. Mapei has specifically developed preblended cementitious products with exceptional physical-chemical characteristics suitable areas exposed cyclically to wet and dry periods, as described in exposure class XF4 cementitious products which need only to be mixed with water, made from special binders and selected aggregates, to make architectonic stone flooring which is suitable for vehicles. The system includes: Mapestone TFB 60, a pre-blended powder mortar, particularly suitable for making screeds and installing stone; Mapestone PFS 2, Mapestone PFS 2 Visco and Mapestone PFS PCC 2, pre-blended powder mortars for grouting joints. The combined use of these products creates a long-lasting monolithic structure.







- 1 Concrete
- Non-woven fabric or PVC sheeet
- Mapestone TFB 60
- 4 Setts and flagstones
- Mapestone PFS 2, Mapestone PFS 2 Visco or Mapestone PFS PCC 2



#### SAFETY

Prevents wear and tear, often the cause of accidents.



#### **DURABILITY**

Withstands the rigours of the most intense road traffic.

#### WHERE TO USE

The monolithic **Mapestone System** is used to make architectural stone floors (made from cubes, kerbstones, cobblestones, slabs and blocks). When it is not necessary to meet the requirements for exposure class XF3, XF4 and XS3, joints may be quickly grouted with **Keracolor PPN**.





#### **TECHNICAL ADVANTAGES**

- HIGH MECHANICAL STRENGTH
- HOMOGENOUS, UNIFORM PRODUCT
- RESISTANT TO FREEZING WEATHER AND DE-ICING SALTS
- RESISTANT TO SEA SALTS, THAT MEANS DURABLE, LONG-LASTING WORK

#### **LOGISTIC ADVANTAGES**

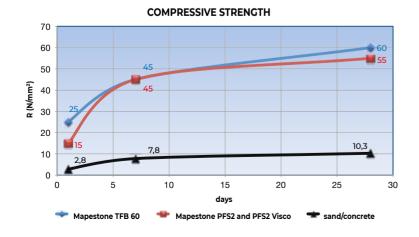
- REDUCTION IN AMOUNT OF WASTE AND OBSTACLES DUE TO ROAD-WORKS
- LOW IMPACT ON THE ENVIRONMENT
- EASY TO CLEAN

#### **SOCIAL ADVANTAGES**

- LOWER MAINTENANCE COSTS
- LESS NOISE
- LESS DISRUPTION FOR INHABITANTS
- FEWER ACCIDENTS (DUE TO FALLS FROM BIKES, MOPEDS AND HIGH HEELS)

#### **ECONOMIC ADVANTAGES**

- HIGHLY DURABLE FINISHED WORK
- REDUCTION IN MAINTENANCE AND/OR REPAIR WORKS
- NO WASTE OF MATERIAL
- LESS TIME REQUIRED FOR ROAD WORKS





Colours available for Mapestone PFS 2 and Mapestone PFS 2 Visco

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



# MAPEI SOLUTIONS **Mapestone** Joint

Mapestone Joint is a solvent-free, non-flammable. one-component, polyurethane binder with a characteristic odour, used for grouting joints for flexible and pervious architectural stone paving, particularly resistant to deicing salts, to thermal shock and to acids; it allows opening to vehicular traffic in short times (48 hours after placing at +20°C). Mapestone Joint is available in 25 kg tanks, 200 kg drums and 1000 kg IBC containers.

Mapestone Joint Cleaner is the new specific cleaner and thinner for **Mapestone Joint**. It is used to remove resin residues that deposit on stone architectural paving during joint grouting made with Mapestone **Joint**. It is also efficient for cleaning the tools after Mapestone Joint application. Available in 5 I tanks.



#### CROSS SECTION OF A BLOCK PAVING GROUTED WITH MAPESTONE JOINT

- - 5/8 cm thick installation bed of 4/8 mm or 3/6 mm coarse stone chippings
  - Blocks of porphyry or other stone
- 3/6 mm gravel infill
- Mapestone Joint



#### **TECHNICAL ADVANTAGES**

- FLEXIBLE SYSTEM
- PERVIOUS CAPACITY
- RESISTANT TO FREEZING WEATHER, DE-ICING SALTS, SEA-SALTS AND SEA SPRAY

#### **ECONOMIC ADVANTAGES**

- HIGHLY DURABLE FINISHED WORK
- HIGH RESISTANCE TO THE CLEANING **ACTION OF POWER SWEEPERS**
- NO WASTE OF MATERIAL
- LESS TIME REQUIRED FOR ROAD WORKS

#### **SOCIAL ADVANTAGES**

- LOWER MAINTENANCE COSTS
- LESS NOISE
- LESS DISRUPTION FOR INHABITANTS
- FEWER ACCIDENTS (DUE TO FALLS FROM BIKES, MOPEDS AND HIGH HEELS)





### **MAPESTONE JOINT BLOCK**



System to create elastic and pervious architectural stone paving by applying **Mapestone** Joint. For use with block, sett and pebble paving in class P4, P5, P6, P7, P8 and P9.



Install the stone blocks on a bed of 4/8 mm or 3/6 mm coarse stone chippings



After wetting the surface, use a vibrating plate compactor



Fill the grout lines with 3/6 mm stone chippings



Fill the grout lines with **Mapestone Joint** 





### **MAPESTONE JOINT SLAB**



System to create elastic and pervious architectural stone paving by applying Mapestone **Joint**. For use with **slab** paving in class P4, P5 and P6.



Prepare and apply the mix made up of 3/6 mm coarse stone chippings and **Mapestone Joint** 



Apply **Mapestone Joint** on the back of the slabs



Install and tap down the slabs



Fill the grouts with 3/6 mm coarse stone chippings and **Mapstone Joint** 

Architectural exposed aggregate concrete surfaces

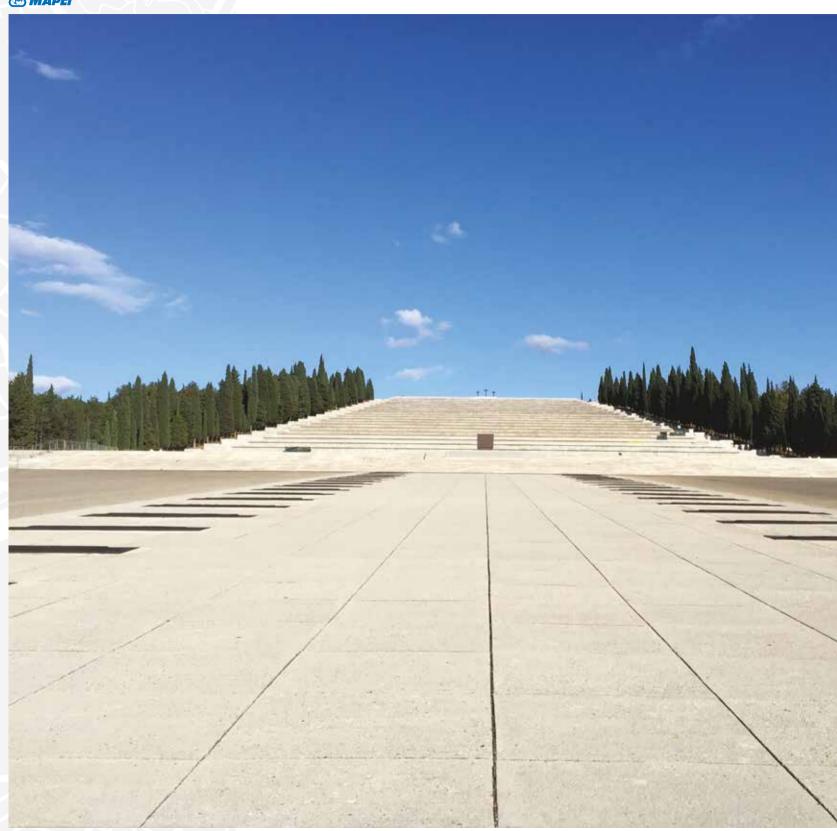


# Mapei Color Paving®

Unique, customisable, integrates perfectly with its surroundings, exceptional mechanical performance characteristics and durability, less maintenance required and easier and more economical to install; these are just a few of the main characteristics of the new solutions proposed by MAPEI to help you create architectural exposed aggregate concrete surfaces.









The principle of creating surfaces made from local stone that integrates perfectly and harmoniously with its surroundings, together with a choice to personalise floors by adding inserts, joints, special shapes, colour schemes, etc., are the basic requirements of anybody involved in the design of external spaces, whether it is a project for a new floor or renovation work on an existing floor.



Whether it is a large-scale public project or a small surface for a private job...

Whether it is a road surface for vehicles subjected to heavy loads or a simple pavement or cycle lane...

... MAPEI has the right solution for you!

Whatever work needs to be done you can count on a wide range of specially developed products that live up perfectly to all your expectations, get all the documents and information you require and count on a highly qualified team of experts with the best advice and all the assistance you need.



### MAPEI SYSTEM



The various solutions and complete range of products on offer will help everybody come to an agreement on the best solution, one that meets all the requirements of the designer engineer and the contractor and, it goes without saying, guarantee the complete satisfaction of the customer and end user.

#### MAPEI SOLUTIONS FOR CONCRETE

#### **Color Paving Admix**

Ready-mixed, multi-purpose powder added to concrete from mixing plants to achieve the mechanical performance and durability required and, if necessary, a certain colour to the cementitious matrix.

#### **Color Paving Binder**

Ready-mixed binder made from sand, cement, fibres and admixtures; just add locallysourced selected aggregates. Available upon request.

#### ANCILLARY PRODUCTS FOR THE PREPARATION AND FINISHING

#### **Mapewash Protex**

Non-stick protective coating to be used during application phases to prevent dirtying surfaces around or near the area to be treated.

#### **Mapecrete Fast Protection**

Water and oil repelling treatment with a consolidating effect that may be applied on substrates that have been cured for at least 24 hours.

#### **Color Paving Pronto**

Ready-mixed, ready-to-use architectural screed. Everything you need in just one package: coarse aggregates, sand, cement, fibres and admixtures and color **Color Paving Admix**.

#### Mapewash PO

Biodegradable vegetable oil-based surface set retardant with curing effect to create an architectural exposed aggregate finish on the surface of cast concrete.

#### **Mapecolor Pigment**

A mixture of powdered oxides (class B in compliance to NF EN 128789) to give a personalised, durable colour to the cementitious matrix.



# SAFETY FROM A JOB CARRIED OUT TO LAST OVER THE YEARS

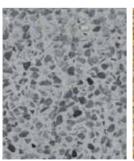
Apart from their particular finish similar to terrazzo, **Mapei Color Paving** floors are characterised by their high mechanical performance characteristics and durability, as specified in EN 206:2014 standards for external concrete floors. To achieve these mechanical characteristics and durability, the following are present in concrete mixed with **Color Paving Admix**, **Color Paving Binder** and **Color Paving Pronto**:

- a combination of admixtures specially developed by the Mapei S.p.A. R&D laboratories;
- fibres;
- colouring pigments (also available in a neutral colour).





#### **COLOR PAVING PRONTO**







8/12 mm - Neutral - Yellow - Red









12/16 mm - Neutral - Yellow - Red - White



# WORKING PHASES

The starting point for the successful outcome of any job is a correct, thorough design phase. Once the designers have issued all the specifications, such as Rck, exposure class, thicknesses, description of joints, type and/or preparation of the substrate, any architectural elements to be included, type and colour of the aggregate, grade of finish, type of protection, etc., the contractor can start work according to the following phases:



Positioning of kerbs, inserts and architectural elements as per the technical specifications.



Protective coat of **Mapewash Protex** on all the substrates in and around the floor that could get dirty during the various work phases.



Mixing the architectural concrete finish using one of the solutions proposed by Mapei: Color Paving Admix, Color Paving Binder and Color Paving Pronto.



Pouring Mapei Color Paving architectural concrete.



Smoothing the concrete.



Application of the set-retardant Mapewash PO.



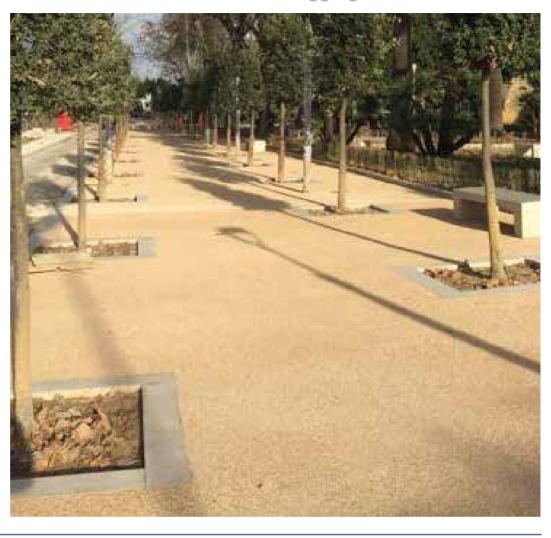
Washing the surface with an high-pressure cleaner.



Application of Mapecrete Fast Protection.



Finished work.





### MAPEI EXPERIENCE FOR CONCRETE

Apart from supplying technologically advanced products that are also ecofriendly, we have a highly qualified Team of experts available to provide support for designers when writing the technical specifications and for contractors when carrying out the work on site. Also on our website at www.mapei.com, you can find the technical data sheet for each single product and a series of technical specifications.



#### **ADVANTAGES:**

- High mechanical performance characteristics;
- Resistant to freeze-thaw cycles;
- Surfaces may be customised with various patterns, colours and finishes;
- Suitable for surfaces used by vehicles;
- Easy to maintain;
- No limit to shape or size;
- Various types of insert may be included to create architectural patterns.

Mapei Color Paving can mainly be used for: roads with medium to low volumes of traffic, pedestrian areas and pavements, beautifying public areas (squares, car-parks, etc.), driveways for private houses, pathways in public parks, cycle lanes, etc.

Systems for resin-based flooring in urban areas



## Mapecoat TNS

Mapecoat TNS systems are the ideal solution to create urban surfaces, such as cycle lanes, pedestrian zones, parking bays, areas with vehicle traffic and multi-purpose areas. Their high resistance to all weather conditions, de-icing products and wear caused by intense traffic give Mapecoat TNS systems a high level of durability.

Mapecoat TNS systems may be applied on both concrete and asphalt surfaces to maintain the integrity of the substrate and, thanks to the wide range of colours available, guarantee a highly attractive finish.







Mapecoa meet the pavement aesthetic and existic constant, weather constant, weather constant, available, attractive visibility, resafety.

Mapecoat TNS Urban systems applied on asphalt surfaces meet the performance requirements specified for pavements and roads as well as the demand for certain aesthetic qualities. These types of coatings protect both new and existing bituminous conglomerates while guaranteeing constant, durable protection over the years in all types of weather conditions. Also, thanks to the vast range of colours available, they provide an architectural solution with a highly attractive finish which, combined with their high level of visibility, meet the main requirements in the field of road safety.







#### **ADVANTAGES:**

- PROTECT CONCRETE AND ASPHALT SUBSTRATES
- NON-SLIP
- RESISTANT TO OIL AND FUEL IN GENERAL
- SURFACES ARE MORE DURABLE THANKS TO THEIR EXCELLENT RESISTANCE TO ABRASION



# Mapecoat Tns Urban

Multi-layered acrylic resin-based system for protecting and colouring asphalt and concrete surfaces used by pedestrians and cyclists which are certified by Anas authority.





Pedestrian/cycle path, Verona railway station, Italy
 External area, Udine public library, Italy
 Pedestrian/cycle path, Verona railway station, Italy







Mapecoat TNS Line

**5** Mapecoat TNS Protection

1 Asfalto

Mapecoat TNS White Base Coat

**3** Mapecoat TNS Urban



# Mapecoat TNS urban Fast Track



Rapid-drying acrylic resin-based system for refurbishing vehicle and pedestrian areas, and cycle lanes to enable treated areas to be reopened quickly.



Public park, Jordan Spring, Australia
 Public parking plat Parkanana Italy

- 2) Public parking slot, Pordenone, Italy
- 3) Private house, Singapore







- Mape-Asphalt Repair 0/8
- 2 Asphalt

- 3 4 Mapecoat TNS Race Track
- Mapecoat TNS Line

Rapid solutions for maintenance work on roads, in industrial environments and urban areas



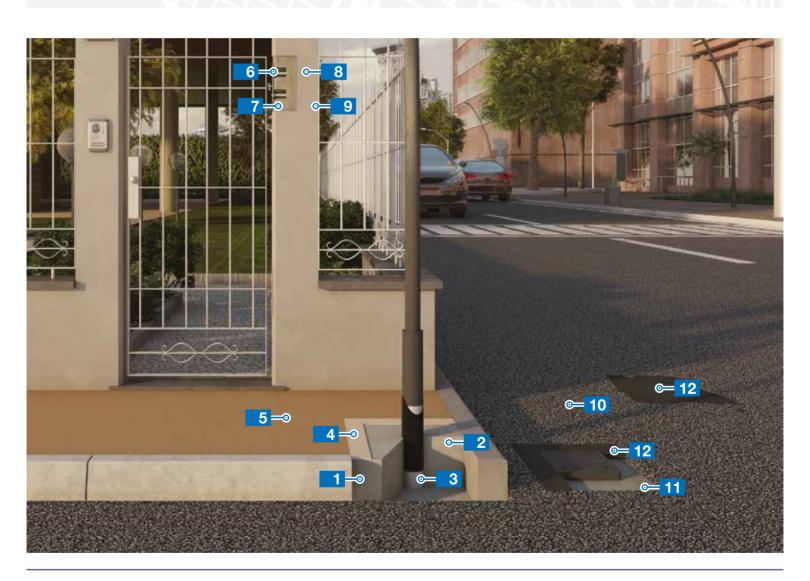
# Mapegrout Mape-Asphalt Repair 0/8 Planiseal Traffic Coat EU

The solutions include special, ready-to-use reactive asphalt, cementitious mortars and epoxy systems which allow roads, motorways, laybys, airport roads and industrial floors to be repaired with products that are quick and easy to install so that the repaired areas can be open to traffic again very quickly.





# RAPID MAINTENACE SOLUTIONS FOR ROADS, INDUSTRIAL ENVIRONMENTS AND URBAN AREAS



- Concrete
- Mapefill R
- Mapeshield S + Mapetape
- 4 Adesilex P4 + Latex Plus

- 5 Mapecoat TNS
- Mapefix PE SF
- Planitop 210
- 8 Malech

- Elastocolor Pittura
- 10 Asphalt
- 111 Mapegrout SV Fiber
- 12 Mape-Asphalt Repair 0/8

Mapei solutions for the highway maintenence sector allow repair work to be carried out using products characterised by high mechanical performance characteristics which remain durable over the years, including when sublected to heavy stresses. The systems proposed by Mapei meet the requirements of the market, which is becoming increasingly oriented towards the use of new technology and applications, as well as the specific needs of contractors.

#### **ADVANTAGES:**

- QUICK AND EASY TO INSTALL
- HARDENS WITHOUT SHRINKAGE
- REPAIRED SURFACES MAY
   BE RAPIDLY PUT INTO SERVICE
   AND CAN BE OPENED TO TRAFFIC
   AGAIN VERY QUICKLY



#### **MAPE-ASPHALT REPAIR 0/8**

One-component, ready-mixed, cold-applied reactive asphalt for repairing potholes in roads.

#### **MAPEGROUT SV**

Hi-flow, compensated-shrinkage, rapid-setting and hardening mortar; available in grey and black.

#### **MAPEGROUT SV T**

Compensated-shrinkage, rapid-setting and hardening, thixotropic mortar; available in black.

#### **MAPEGROUT SV FIBER**

Hi-flow, compensated-shrinkage, high ductility, rapid-setting and hardening mortar reinforced with stiff steel fibres, for applications down to -5°C.

#### **MAPEGROUT HI-FLOW TI 20**

Hi-flow, compensated-shrinkage, high ductility, normal-setting mortar reinforced with stiff steel fibres.

#### **PLANISEAL TRAFFIC COAT EU**

Rapid-hardening epoxy system to form non-slip concrete surfaces resistant to abrasion.



# Mape-Asphalt Repair 0/8

One-component, ready-to-use, highly reactive, coldapplied asphalt which, thanks to a special chemical process, hardens when it comes into contact with air and water, even in winter. This product is used to carry out repairs quickly to road surfaces and asphalt floors in industrial environments without interrupting the flow of traffic.

Mape-Asphalt Repair 0/8 is resistant to intense loads, freezing weather and rain and, once hardened, does not soften, even at high temperatures, and guarantees repairs remain durable and stable over the years, similar to repairs carried out using traditional hot-applied asphalt.









# Rapid solutions for maintenance work on roads, in industrial environments and urban areas



### **Mapegrout SV**



Hi-flow, compensated-shrinkage, rapid-setting and hardening mortar available in grey and back for repairing concrete floors and anchoring manholes, drain covers and street furniture and features.

Mapegrout SV contains special hydraulic binders and high-strength cement which give the product its high level of mechanical strength and resistance to abrasion and makes it impermeable to water, allowing surfaces to be opened to pedestrians and vehicles with tyres within a few hours of application.







# **Mapegrout SV T**

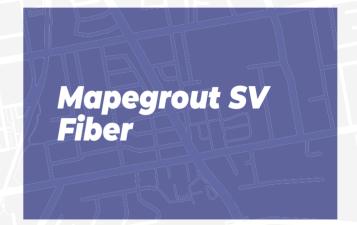
Compensated-shrinkage, rapid-setting and hardening, black thixotropic mortar for repairing concrete road surfaces, including those with slopes, and access ramps, as well as for anchoring run-off channels and guard-rails between carriageways, pavement kerbstones and street furniture and features.

This product may also be used to repair roads which need to be reopened to traffic within a short space of time.





Hi-flow, compensated-shrinkage, high ductility, rapid-setting and hardening mortar reinforced with stiff, hooked steel fibres for repairing concrete floors in industrial environments and the surface of roads and airport roads, reconstructing and levelling off pier caps and bearing elements on viaduct piles and for repairing structures in general subjected to high dynamic loads. Thanks to its special composition, the steel fibres that give the mortar its high level of ductility and the special hydraulic binders contained in the mortar, this product is able to reach high levels of mechanical strength at temperatures as low as -5°C while also guaranteeing a high level of resistance to abrasion and impact loads.









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### Mapegrout Hi-Flow TI 20

Hi-flow, compensated-shrinkage, high ductility, normal setting mortar reinforced with stiff, hooked steel fibres for repairing concrete floors in industrial environments and the surface of roads and airport roads, reconstructing and levelling off pier caps and bearing elements on viaduct piles and for repairing structures in general subjected to high dynamic loads. Thanks to its special composition, the steel fibres that give the mortar its high level of ductility and the special hydraulic binders contained in the mortar, this product has a high level of resistance to abrasion and impact loads.







## Rapid solutions for maintenance work on roads, in industrial environments and urban areas



Solvent-free, rapid-hardening, epoxy resin-based system used in combination with **Bauxite White 1-3** selected, aluminium silicate-based aggregates with high resistance to abrasion. This system is of great advantage when used to form non-slip concrete surfaces on roads and motorways, including those exposed to intense vehicle traffic, loading and unloading bays, carparks and floors in industrial environments. This system also increases the service life of treated surfaces and protects them from freeze/ thaw cycles and the presence of de-icing salts.











# Ceramic and natural stone surfaces

When choosing products to install road surfaces in urban areas, the stresses encountered in such areas must be taken into consideration: temperature variations, the presence of water, heavy loads, etc. This is why high performance mortars, adhesives and sealants with excellent mechanical characteristics and deformability need to be used.





## SOLUTIONS FOR INSTALLING CERAMIC AND NATURAL STONE IN URBAN AREAS



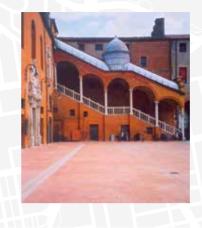


There are numerous products available to install road surfaces, from substrate products, adhesives to install the actual surface, grouting mortars and sealants. The most suitable materials must be chosen according to the specific area of use of the surface and the stresses acting on the surface when in service. And within the vast range of Mapei products available, it is possible to single out some of the most suitable products for this type of work.

#### **ADVANTAGES:**

- HIGH PERFORMANCE
- COMPATIBILITY WITH OTHER SYSTEM PRODUCTS
- AVAILABILITY OF RAPID SYSTEMS FOR QUICKER INSTALLATION





#### **TOPCEM PRONTO**

Ready-mixed, normal-setting, shrinkage-compensated mortar for quick-drying screeds.

## KERAFLEX MAXI SI/KERAFLEX MAXI SI ZERØ

High-performance, deformable cementitious adhesive, particularly suitable for installing large format porcelain and natural stone.

#### **ELASTORAPID**

High-performance, highly deformable, rapid-setting cementitious adhesive for installing ceramic tiles and stone.

#### **KERACOLOR GG**

Ready-mixed, high performance cementitious mortar for grout lines up to 15 mm wide.

#### **ULTRACOLOR PLUS**

High performance, non-irritating, anti-efflorescence, rapid-setting and drying mortar for grout lines up to 20 mm wide.

#### **MAPEFLEX PU 45 FT**

High modulus, rapid-hardening polyurethane sealant for movements of up to 20%.



## **Topcem Pronto**

Ready-mixed, normal-setting, quick-drying screed mortar. Substrates made from Topcem Pronto have excellent mechanical characteristics. In fact, this product is classified CT - C30 - F6 - A1 fl according to Euronorm EN 13813. Using ready-mixed mortar to make substrates reduces the risk of making errors when dosing the binder or choosing the aggregates, errors which could compromise the final characteristics of the finished screed. Topcem Pronto is also the optimum solution when it is difficult find good quality aggregates in the correct particle size or when working in certain areas, such as historic town centres, where transport can be a problem or it is difficult to prepare mortar using traditional binders.









Keraflex Maxi S1 is a high-performance, deformable, ultra-white non-slip cementitious adhesive for ceramic tiles with extended open time, excellent workability and Low Dust technology with very low emission of VOC. It is particularly recommended for installing large format porcelain tiles and natural stone not sensitive to water. This adhesive meets the requirements of class C2TES1 according to Euronorm EN 12004. The grey version of this adhesive, which is called **Keraflex Maxi S1 Zerø**, is also characterised by its offset residual greenhouse emissions through certified environmental credits. Both products are particularly recommended for installing surfaces exposed to intense traffic. The special rheological properties of the adhesives means there is no drop when heavy tiles are installed on even thick layers of adhesive, which are often required to compensate for uneven areas in the installation bed. The products are also class S1 deformable, which means they have a good capacity to absorb deformations in the substrate and tiles. Their extended open and adjustment times also make installation work easier.

## Keraflex Maxi S1 Keraflex Maxi S1 Zerø





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## Elastorapid







Two-component, high-performance, non-slip, highly-deformable, rapid-setting and hydrating cementitious adhesive with extended open time for ceramic tiles and stone materials. This product meets the requirements of class C2FTES2 according to Euronorm EN 12004. It is suitable for bonding all types of ceramic tiles and natural stone, including stone moderately sensitive to moisture.

**Elastorapid** is recommended for quick rebuilding work when surfaces need to be put into service immediately. Its extended open time means it is also better to work with, including in hot weather. The high level of deformability which characterises this adhesive means it may be used on surfaces exposed to direct sunlight and surfaces with high variations in temperature, as well as in areas subjected to high levels of mechanical stress and vibrations.









High performance, polymer-modified cementitious mortar with very low emission of VOC for grouting all types of ceramic and stone. This product meets the requirements of class CG2WA according to Euronorm EN 13888.

**Keracolor GG** is suitable for grouting external surfaces thanks to its level of compressive and flexural strength and high resistance to freeze/thaw cycles, as well as for its high level of durability. Grout lines filled with this product also have good resistance to abrasion and have a very low rate of shrinkage.

Mixing **Keracolor GG** with **Fugolastic**, a special polymer admix made from synthetic resins, improves the final characteristics of the grout and makes it resistant to even the most severe service conditions.





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### Ultracolor Plus

High-performance, anti-efflorescence, quick-setting and drying polymer-modified mortar with water-repellent DropEffect® and mould-resistant BioBlock® technology for grouting joints from 2 to 20 mm wide, with very low emission level of VOC. This product meets the requirements of class CG2WA according to Euronorm EN 13888. **Ultracolor Plus** is suitable for internal and external grouting of floors and walls in all types of ceramic, terracotta, stone material and glass and marble mosaics thanks to its optimum resistance to abrasion, compression and flexural strength, even after freeze/thaw cycles.

With **Ultracolor Plus** it is possible to obtain grouts with uniform colour and free of staining, thanks to the low level of water absorption and the absence of efflorescences.



High-modulus, rapid-hardening polyurethane adhesive and sealant for movements of up to 20%. Suitable for sealing external expansion joints. Its high modulus of elasticity means it is suitable for surfaces subjected to intense traffic. Suitable for sealing joints in ceramic floors, including in areas subjected to intense traffic, and surfaces used by vehicles. It has a special consistency which means it may be

applied quickly and, thanks to its quick hardening properties, surface can be put into service quickly, which translates into economic advantages.

To seal stone and marble floors, it is preferable to use **Mapesil LM**.











## We construct a sustainable future together

The ability to offer the best and most innovative solutions, to help design and construct according to eco-sustainable principles is a fundamental commitment for Mapei. This requires a sense of responsibility and the ability to make concrete choises in order to supply **designers**, **contractors**, **workers** and clients with products which are safe, reliable, durable over the years and which have the lowest impact possible on the environement.

This means safeguarding the environment and our health and uniting quality architecture and R&D, thanks to the experience matured by the company through operating on the most important construction sites around the world. We make a substantial contribution to the concept of **quality and durable building** by formulating products made from innovative, recycled and ultra-lightweight raw materials, specifically developed to reduce energy consumption and to have very low emission levels of volatile organic compounds.



