MAPEGROUT SV ME

Fast-setting and hardening compensated-shrinkage, easy-flow mortar for repairing concrete.



WHERE TO USE

- Repairing badly-damaged concrete structures which require the use of high flowing mortars
- Repairing industrial floorings, highways, and airport works that need to be reopened to traffic within a short period of time
- Rapid fixing of inspection shafts and manholes

Some application examples

- Repairing concrete floorings for industrial use, shopping centres, and warehouses
- Repairing concrete floorings in airports
- Repairing pedestrian concrete pavements
- Fixing road signs
- Fixing concrete pylons for electricity lines or telephone lines
- Fixing fencing
- Fixing general highway coating materials
- Anchoring kerbstones and protection barriers
- Fixing drain covers and gas, electric, and phone-line inspection shafts

TECHNICAL CHARACTERISTICS

Mapegrout SV ME is a one-component, pre-blended mortar in powder form, made up of specific hydraulic binders, high-strength cement, graded aggregates and special admixtures according to a formula developed in MAPEI's Research Laboratories. By varying the amount of mixing water accordingly, **Mapegrout SV ME** takes on either a fluid or highly fluid consistency. This makes the mortar suitable for casting, even at a greater thickness (up to 5 cm), into formwork or a defined space, without the risk of segregation. Its special composition and the special admixtures contained in the product give the mortar high mechanical strength even after a very long period of time, and make it waterproof and with high resistance to abrasion.

Mapegrout SV ME meets the requirements defined by EN 1504-9 *("Products and systems for the protection and repair of concrete structures - Definitions, requirements, quality control and evaluation of conformity - General principles for the use of products and systems")* and the minimum requirements claimed by EN 1504-3 *("Structural and non structural repair")* for structural mortars of class R4.

RECOMMENDATIONS

- Do not add cement or admixtures to **Mapegrout SV ME**
- Do not use **Mapegrout SV ME** if the packaging is damaged

- Do not add water once the mix has started to set
- Do not apply **Mapegrout SV ME** on asphalt or surfaces treated with bitumen
- Do not apply **Mapegrout SV ME** on smooth surfaces. Roughen the substrate (minimum CSP8) and, where necessary, add contrast reinforcement
- Do not use **Mapegrout SV ME** if the temperature is lower than +5°C. If it is necessary to use the product at a temperature that is not within the recommended temperature range, please contact our Technical Services Department
- **Mapegrout SV ME** hardens very fast. Therefore, it is recommended to mix only amounts that may be poured within the allowable application time after preparation

APPLICATION PROCEDURE

TECHNICAL INFORMATION FOR PRODUCT PREPARATION	
Mix composition:	100 kg **Mapegrout SV ME** 12-13 kg of water
Thickness applied:	up to 50 mm
Application temperature:	Surrounding temperature from -5°C to +40°C
Pot life of mix:	40 min. (at +23°C)

Preparation of the substrate

- Remove damaged or loose concrete until a sound, strong and rough substrate is obtained
- Eliminate traces of paint, oil, powder and any other material which may impede the adhesion of **Mapegrout SV ME** to the substrate
- Saturate the substrate with water
- Before casting, wait until the excess water has evaporated. If necessary, this phase may be speeded up by using compressed air

Preparation of the mortar

Pour 12-13% of water (3-3.25 litres for each 25 kg bag), according to the consistency required, into a cement mixer. Slowly add **Mapegrout SV ME** and mix for 1-2 minutes. Remove all traces of powder not perfectly blended from the inside surface of the mixer and continue mixing for 2-3 minutes, until a completely homogenous paste is obtained. **Mapegrout SV ME** remains workable for approximately 40 minutes at a temperature of +23°C.
Instructions for the preparation of mortar for Lab testing samples can be found in the TECHNICAL DATA section.

Applying the mortar

Pour **Mapegrout SV ME** into the area prepared without the use of vibration, and smooth off the surface immediately with a trowel. If necessary, after laying inspection shafts or manholes re-asphalt the area. A thickness of at least 3 cm is recommended to allow the bitumen layer to adhere well and withstand the passage of traffic without yielding.

Cleaning

Fresh mortar may be removed from tools used for preparing and laying the mix with running water. Once the product has been set, it can be only removed mechanically.

PRECAUTIONS TO BE TAKEN DURING AND AFTER APPLICATION

High temperatures and/or windy conditions

- Always saturate the substrate with water.
- Mix the product with cold water.

- Protect the fresh surface of the mortar from quick evaporation, which could cause plastic shrinkage cracks, with **Mapecure S** or **Mapecure E**.

CONSUMPTION

23 kg/m² at 1 cm thickness.
Yield: 12.25 litres / 25 kg.

PACKAGING

Mapegrout SV ME is supplied in 25 kg bags.

STORAGE

When stored in dry conditions in the original, unopened bags, **Mapegrout SV ME** has a shelf life of 12 months. If stored at high temperature and or high humidity conditions the shelf life may be reduced.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Instruction on the safe use of our products can be found on the latest version of the Safety Data Sheet available on our website www.mapei.ae.

TECHNICAL DATA (Typical values)

PRODUCT IDENTIFICATION	
Class according to EN 1504-3:	R4
Type:	CC
Consistency:	Powder
Color:	Grey
Maximum aggregate size (mm):	2.5
Chloride ions content: – minimum requirements ≤ 0.05% - according to EN 1015-17:	≤ 0.05%

TECHNICAL INFORMATION FOR PRODUCT PREPARATION	
Mix composition:	100 parts by weight of **Mapegrout SV ME** with 13% of water
Preparation of mix:	Mix the product in compliance with the standard EN 196-1

CHARACTERISTICS OF FRESH MIX (at +20°C - 50% R.H.)	
Colour of mix:	grey
Consistency of mix:	fluid
Density of mix:	2300 kg/m³

APPLICATION DATA	
Colour of the mix:	grey
Mixing Ratio:	100 parts of **Mapegrout SV ME** with 12-13 parts of water (3-3.25 L of water for every 25 bags)

Consistency of mix:	fluid
Density of mix (kg/m³):	2300
pH of the mix:	> 12
Application temperature range:	from +5°C to +40°C
Pot life of mix:	40 min at +23°C

FINAL PERFORMANCE PROPERTIES
According to seasoning defined in the test methods

Performance characteristic	Test method	Requirements EN 1504-3 (R4)	Performance of product
Compressive strength:			
- 3 hours:	EN 12190	-	25 MPa
- 4 hours:			30 MPa
- 8 hours:		-	35 MPa
- 1 day		-	40 MPa
- 7 days:		-	45 MPa
- 28 days:		≥ 45 MPa	55 MPa
Flexural strength:			
- 1 day:	EN 196-1	not required	4 MPa
- 7 days:			6 MPa
- 28 days:			8 MPa

IMPORTANT NOTES

Whilst we try to ensure that any advice, recommendations or information given in our literature is accurate and correct, we have no control over the circumstances in which our product is used. It is therefore important that installers satisfy themselves that the product and conditions are suitable for the envisaged application. No warranty can be given or responsibility accepted other than, that the product supplied by us will meet our written specification. The installer should ensure that our latest product data and safety information sheets have been consulted prior to use.

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

LEGAL NOTICE

The contents of this Technical Data Sheet ("TDS") may be copied into other project-related documents, but the resulting document shall not supplement or replace requirements per the TDS in force at the time of the MAPEI product installation. The most up-to-date TDS can be downloaded from our website www.mapei.com.

ANY ALTERATIONS TO THE WORDING OR REQUIREMENTS CONTAINED OR DERIVED FROM THIS TDS EXCLUDES THE RESPONSIBILITY OF MAPEI.

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

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