MAPEGROUT PT ME

Super-fluid, shrinkage-compensated, sand-free cementitious injection grout to fill or repair ducts of post-tensioning strands for corrosion protection.



CLASSIFIED AS EUROPEAN STANDARD EN 1504-3 R4 MAPEI REPAIR MORTAR

WHERE TO USE

Filling of voids in narrow or congested spaces, especially where the grout needs to be pumped long distances without bleeding or segregation.

Some application examples

- Filling post-tensioning cable ducts in pre-stressed concrete horizontally & vertically
- Repair grouting of voids and cavities in cable ducts
- Slurry for filling narrow cavities and cracks in rock or damaged concrete
- Slurry for consolidating loose soil

TECHNICAL CHARACTERISTICS

Mapegrout PT ME is a sand-free, cementitious grout for preparing super-fluid injection slurries which can be pumped long distances without bleeding or segregation. It does not contain any hydrogen-generating aluminum powder and thus has no corrosive effects on steel. The expanding action of **Mapegrout PT ME** completely eliminates hydraulic shrinkage.

RECOMMENDATIONS

Do not use **Mapegrout PT ME** for precision grouting. Use instead **Mapefill SP ME.**

APPLICATION PROCEDURE

TECHNICAL INFORMATION FOR THE APPLICATION	
Mixing ratio	100 kg of **Mapegrout PT ME** 34 kg of water *(depending on consistency required)*
Minimum application thickness:	2 mm
Application temperature range:	Surrounding and substrate temperature from +5 °C to +40 °C

Preparation of the substrate

For cable duct grouting, all surfaces, openings and inlet/outlet points must be clean and free of dust, loose particles, greases, oils and all contaminants. For other applications, the substrate must be completely clean and solid. Unsound or loose sections, cement laitance and traces of form-release oils must be removed by scrubbing

and/or washing with high-pressure water-jetting. Pre-wet concrete substrates to saturated-surface-dry (SSD) condition prior to placement.

Preparation of the mix

Pour up to 80% of the required water into a clean container. Gradually add **Mapegrout PT ME** while mixing continuously using a colloidal mixer / high-shear mixer. Mix for 1-2 minutes. Release any powder adhering to the sides of the container into the mix. Add the remaining water as required and continue mixing for 2-3 minutes to achieve the desired lump-free and homogenous consistency. For grouting volumes larger than the mixer capacity, transfer the material from each mix into the holding hopper and keep the grout agitated at slow speeds. The grout should remain pumpable for about 30 minutes. This will vary depending on the ambient temperature and mix ratio. Do not expose the material, whether in bags or mixed, to direct sun. If required, cold water may be used for preparing the mix. Instructions for the preparation of mortar for Lab testing samples can be found in the TECHNICAL DATA section.

Application of the mix

The pumping and placing method must be selected to suit the project parameters. It is strongly recommended that trials simulating site conditions and covering all procedures including mixing, pumping, placing and testing are carried out and monitored by the engineer to ensure the project's requirements are met.

Cleaning

Fresh grout can be removed from tools with water. After hardening, cleaning becomes very difficult and can only be done mechanically.

CONSUMPTION

25 kg bag of **Mapegrout PT ME** yields approximately 16-17 litres of grout (depending on water addition).

PACKAGING

Mapegrout PT ME is available in 25 kg bags.

STORAGE

When stored in dry conditions in the original, unopened bags, **Mapegrout PT ME** has a shelf life of 12 months.

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 DATA	
Consistency:	Sand-free powder
Colour:	grey
Maximum size of aggregate:	1.2 mm
Chloride ion content: (MS 522: Part4 / BS EN 196-2)	< 0.05

TECHNICAL INFORMATION FOR PRODUCT PREPARATION	
Mixing ratio:	100 parts in weight of **Mapegrout PT ME** with 34% of water

Preparation of the mix:	While mixing, add approx. 3/4 of the total amount of water. Then, add slowly the product and the remaining mixing water while continuing mixing. Mix under high shear for at least 2 minutes until a homogeneous paste without lumps is obtained.

CHARACTERISTICS OF THE FRESH MIX (at +20 °C and 50% R.H.)	
Colour of mix:	Grey
Flow (BS EN 445):	≤ 25 sec.
Density of mix:	2010 kg/m³
Bleeding (BS EN 445): – after 3 hours:	≤ 0.3%

FINAL PERFORMANCE
According to curing defined in the tests methods

Performance characteristic	Test method	Product performance
Compressive strength: **- 1 day** **- 7 days** **- 28 days**	EN 196-1	> 15 MPa > 40 MPa > 55 MPa
Flexural strength: **- 1 day** **- 7 days** **- 28 days**	EN 196-1	> 4 MPa > 6 MPa > 9 MPa
Compressive strength: **- 28 days**	ASTM C109	> 55 MPa
Expansion after 24 hours:	BS EN 445	nil

Note: *Sample preparation: pour the mortar in the center of each compartment of the mould, taking care to fill it.*

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.ae.

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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316-5-2025 (UAE)

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