PLANIGROUT 300 ME

Three-component, multi-purpose fluid epoxy resin grout





IN COMPLIANCE WITH EUROPEAN STANDARD
EN 1504-6
MAPEI
ANCHORING STEEL REINFORCEMENT BARS

WHERE TO USE

Planigrout 300 ME is a free flowing epoxy grout specifically developed for heavy duty and structural support under both static and dynamic situations.

Some application examples

- Grouting under reciprocating or rotating equipment such as pumps and machines particularly those used in the oil, gas and water industry.
- Re-profiling and waterproofing of pile caps.
- Grouting and/or repairing under heavy crane/ transporter rails or other industrial applications subject to substantial vibration.
- Rebuilding and renovation of damaged joints and butt joints for example to industrial floors.
- Filling of large voids in concrete floors and slabs where the use of an epoxy resin material is appropriate.
- Foundations for presses and general heavy machinery.
- Providing an even surface prior to installation of bridge beam bearings.
- Installation and re-instatement of mechanical joints such as those used in the transportation sector.
- Structural fixing of tie-rod fasteners and bolts in existing concrete structures, stone, rock and steel subject to vibration and chemical attack.

TECHNICAL CHARACTERISTICS

Planigrout 300 ME is a three-component product based on epoxy resin, selected well-graded aggregates and special additives.
Mix all of component A with all of component B then add all the component C to create a flowable mixture which is easily poured and placed.
After application, **Planigrout 300 ME** hardens in approximately 8 hours at +23°C by means of chemical reticulation without shrinking and is transformed into a compound with exceptional bonding strength as well as chemical and mechanical resistance characteristics.
After hardening **Planigrout 300 ME** is highly durable and as such it may be used for both internal and external applications.
Planigrout 300 ME may be applied in a temperature range between +5°C and +40°C.

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RECOMMENDATIONS

- **Planigrout 300 ME** is not suitable for sealing joints which may be subject to any future movement. Please see our MAPEI range of high performance joint sealants and seek advice from your local MAPEI technical representative.
- **Planigrout 300 ME** must not be used as a bonding agent for cold joints between fresh and old concrete (use **Eporip**).
- **Planigrout 300 ME** must not be used on wet surfaces.
- **Planigrout 300 ME** must not be used on dirty, contaminated or unsound surfaces.
- **Planigrout 300 ME** must not be used for bonding and grouting of anti-acid ceramic tiles (use **Kerapoxy**).

APPLICATION PROCEDURE

Preparation of the substrate

To guarantee that **Planigrout 300 ME** bonds well to the substrate, special care must be taken in the preparation of the surfaces to be bonded. The concrete substrate must be clean, dry, and sound. The compressive strength of the concrete substrate must be at least 25 N/mm², and its tensile strength must be at least 1.5 N/mm².
The most suitable methods for preparing the substrate are chiseling, sand-blasting, milling, shot blasting, grinding the surface in order to remove irregular or loose particles, efflorescence, cement laitance, traces of oil, and form release agents. Prior to application of the grout, remove all traces of dust from the substrate with compressed air and/or an industrial vacuum cleaner. Metallic surfaces must be free of all traces of rust, paint, and/or oil preferably by means of sandblasting down to bare metal (SA 2½). Cast-in-situ concrete structures have to be cured for at least 4 weeks prior to the application of **Planigrout 300 ME** to avoid the stresses induced by hygrometric shrinkage in the concrete being concentrated at the interface of the joined parts.

Preparing the mix

The three-components which make up **Planigrout 300 ME** have to be mixed together. Pour component B into component A, making sure that the container with the catalyst (component B) is completely emptied, and mix them together with a drill fitted with a low-speed mixer until a completely homogeneous paste is formed. Pour the mixture into a suitable size container and add 2 bags of component C with a continuous, regular flow, and mix together by using a slow speed drill for 4 or 5 minutes until a uniformly wet paste with a homogenous colour is obtained. The packages are already pre-dosed. Therefore, avoid using only partial quantities of the packaged material to avoid accidental errors in the mix ratio, which would lead to a lack or only partial setting of **Planigrout 300 ME.**

Application of the mix

Planigrout 300 ME is applied by pouring and, where necessary, into sealed formworks. In order to achieve good bonding, it is advisable to pre-treat the surfaces to be repaired with **Primer MF**. The air temperature has an effect on the setting time of the product; at +23°C, **Planigrout 300 ME** may be worked for approximately 60 minutes. **Planigrout 300 ME** must be applied within the indicated pot life. Therefore, make sure that the work is organized and programmed so that all the operations are completed within the time indicated above.

Cleaning

Planigrout 300 ME has a high bonding capacity even on metals, therefore it is advisable to wash all tools with a suitable solvent (ethyl alcohol, toluene etc.) before the product completely sets.

PRECAUTIONS TO BE TAKEN DURING AND AFTER APPLICATION

Only use bags of **Planigrout 300 ME** which have been stored correctly, covered and stored in a dry place. In hot weather working conditions, the following precautions should be taken:

- Avoid direct exposure to sunlight for stored material and also mixing equipment.
- Avoid application during the hottest time of the day and/or direct sunlight.
- Mix only sufficient material that can be applied using available labour and equipment to ensure a continuous and uninterrupted application.

CONSUMPTION

2.2 kg/m² per mm of thickness.

PACKAGING

50.6 kg: part A = 4.8 kg; part B = 1.8 kg; part C = 2 bags of 22 kg.
25.3 kg: part A = 2.4 kg; part B = 0.9 kg; part C = 22 kg.

STORAGE

When stored in dry conditions in the original, unopened packs, **Planigrout 300 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

After mixing components A and B, the material reacts and generates a high amount of heat. We recommend applying the product as soon as possible after preparing the mix and to never leave the container with the resins unattended until it is completely empty.
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			
	Comp. A	**Comp. B**	**Comp. C**
Consistency:	liquid	liquid	powder
Colour:	off-white	straw	grey
Maximum size of aggregate (mm):	-	-	2.0
Density (g/cm³):	1.13	1.00	-
Viscosity (mPa·s):	1,700	130	-

APPLICATION DATA (at 23°C - 50% R.H.)	
Mixing ratio:	Packaging of 50.6 kg - A : B : C = 4.8 : 1.8 : 2X22 Packaging of 25.3 kg - A : B : C = 2.4 : 0.9 : 1X22
Colour of mix:	dark grey
Consistency of mix:	fluid
Density of the mix (kg/m³):	2200
Application temperature range:	from +5°C to +40°C
Pot life of mix:	1 hour
Setting time:	6-8 hours
Final hardening time:	7 days

FINAL PERFORMANCE (after 7 days)	
Compressive strength (EN 196-1) (MPa):	90
Flexural strength (EN 196-1) (MPa):	28
Bond strength on concrete (substrate in MC 0.40 – water/cement ratio = 0.40) according to EN 1766 (MPa):	> 3 (failure concrete)

IMPORTANT NOTES

While we try to ensure that any advice, recommendations, or information 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, nor can responsibility be accepted other than the product we supply will meet our written specifications. The installer should ensure that our latest product data and safety information sheets have been consulted before use.

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

LEGAL NOTICE

The contents of this Technical Data Sheet ("TDS") may be copied into another project-related document, 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 ALTERATION 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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