MAPEQUICK AF 70

Alkali-free accelerator for sprayed concrete

EN 934-5

ASTM C1141-8

DESCRIPTION

Mapequick AF 70 is a liquid alkali-free accelerator, with which it is possible to produce shotcrete characterised by rapid setting times and very quick development of its strength after only a very short curing time.

WHERE TO USE

Mapequick AF 70 is a stable suspension to be used to accelerate sprayed concrete, both in wet-mix as well as dry-mix spray systems and, thanks to its acceleration properties and absence of alkali, it is particularly suitable for spraying high-quality concrete which has high strength after a very short (0-60 minutes), short (60 minutes.-24 hours) and long (> 24 hours) curing time.
The absence of alkali enables concrete to develop high mechanical resistance only a few minutes after casting, with almost no loss of resistance at the final cure when compared to concrete prepared without an accelerator.

Some application examples:

- Securing surfaces during tunneling.
- Sprayed concrete applications with high mechanical performances.
- Consolidation of rock and cliff-faces.
- Sprayed concrete for structural tunnel repairs.
- Sprayed concrete applications with high mechanical strength (≥ 40 N/mm^2) for the final tunnel lining.

TECHNICAL CHARACTERISTICS

Mapequick AF 70 is a water solution of aluminium complexes to be added at the nozzle during the spraying phase, prepared according to a formula developed in the MAPEI research laboratories. The acceleration of the setting time and the development of mechanical performance vary according to the dosage of the admixture, the type and amount of cement, its aging and the water-binder ratio used. The temperature of the shotcrete influences the rate of setting and early strength.

Mapequick AF 70 meets the requirements of EN 934 -5 and ASTM C 1141-08, Types I / II, Grade 9, Class A.

RECOMMENDATIONS

- Do not use **Mapequick AF 70** with ordinary concrete.

- **Mapequick AF 70** cannot be mixed with other setting accelerators. When using another type of accelerator (especially if alkaline-based), it is necessary to thoroughly clean the dosage equipment and the pipes where the setting accelerator flows with water before use.

Note: *do not add directly* ***Mapequick AF 70*** *into the cement mixer.*

LABORATORY TESTING

Our Laboratory is available for evaluating the compatibility and dosage of **Mapequick AF 70** with cements used on job-sites.
To make the best use of **Mapequick AF 70**, please contact the **Underground Technology Team** technical service to verify and perfect the characteristics of the concrete used, according to the local application conditions.

COMPATIBILITY WITH OTHER PRODUCTS

- **Mapequick AF 70** is compatible with all the superplasticizers from the **Dynamon** system and the **Mapefluid** range.
- **Mapequick AF 70** is compatible with our stabilizing agents, such as **Mapetard D** and **Mapetard SD-2000**.

CONSUMPTION

Dosage in weight:
from 3-10 kg per 100 kg cement.

PACKAGING

Mapequick AF 70 is available in 274 kg drums and 1288 kg IBCs. Bulk quantities are also available upon request.

STORAGE

Store the product in closed containers at a temperature between +5°C and +30C, protected from frost and direct sunlight. If the product has been stocked for a long period, it is suggested to shake and homogenise it by using mechanised stirrer and/or recirculation pumps. **It is strongly recommended not to shake the product by means of compressed air.** Please contact our technical service **Underground Technology Team** if the product is used after its expiring date (3 months) or after freezing.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

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

TECHNICAL DATA (typical values)

PRODUCT IDENTIFICATION	
Consistency:	liquid
Colour:	brownish
Density (ISO 758) (g/cm^3):	1.43 ± 0.03 at + 20 °C
pH (ISO 4316):	3 ± 1

Main action:	acceleration of setting time
Alkali equivalent (Na2O) (EN 480/12) (%):	≤ 1
Chlorides (EN 480/10) (%):	≤ 0.1
PFAS content:	not present in the formulation

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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