

MAPEFAST CF/L

Chloride-free hardening accelerator for concrete and mortar



DESCRIPTION

Mapefast CF/L is a liquid admixture made from high-efficient, chloride-free hardening accelerators developed in MAPEI research laboratories.

Mapefast CF/L is a solution of inorganic salts dissolved in water with the capability to accelerate the hydration process of cement, thereby reducing the setting time and increasing the strength of the mix after short curing cycles. The accelerating effect of **Mapefast CF/L** is generally greater when the temperature of concrete or the surrounding temperature is lower than +10°C during the pouring phase.

WHERE TO USE

Mapefast CF/L is an admixture that may be used with any type of concrete in both precast plants and mixing plants. With precast concrete, **Mapefast CF/L** accelerates the development of concrete's mechanical strength after short curing cycles, thus reducing the time to strip formwork and making the production cycle more efficient. In the ready-mix concrete sector, **Mapefast CF/L** allows concrete to be poured at a lower temperature, reduces setting times and allows finishing operations to be carried out earlier.

Mapefast CF/L may be used to great effect in all those applications that require the following:

- high mechanical strength after short curing cycles;
- shorter steam curing cycles;
- pouring of concrete when the surrounding temperature is lower than +10°C;
- optimisation of production cycles;
- reduction of form stripping times;
- mixing of reinforced concrete;
- the use of flying formwork.

TECHNICAL CHARACTERISTICS

Mapefast CF/L is an admixture made from chloride-free, non-corrosive set accelerators and is used to make reinforced concrete without potentially corrosive effects. **Mapefast CF/L** is a catalyser for the formation of hydration products, reduces setting times and accelerates the development of mechanical strength, especially at low temperatures.

HOW TO USE

The amount of **Mapefast CF/L** varies and depends on specific site requirements, characteristics of the materials, surrounding temperature during pouring and rate of acceleration required. Preliminary laboratory tests are recommended in all cases to identify the amount of product required to reach mix design specifications. **Mapefast CF/L** may be added to the mixing water without affecting its accelerating properties, but it must never be mixed with other admixtures. To get the best results, we recommend adding **Mapefast CF/L** to concrete that has already been admixed with a superplasticiser and to mix until it has completely blended with the other components (cement, aggregates and water).

Adding **Mapefast CF/L** to the mix does not mean overlooking the usual precautions for making concrete in cold weather, such as:

- making sure the temperature of the components in the mix is higher than +5°C;
- pouring concrete to make the most of the rise in temperature during the day;
- avoiding to pour concrete if the temperature drops to less than -10°C;

- using cement that develops its mechanical strength rapidly;
- keeping the water/cement ratio as low as possible;
- protecting poured concrete with insulating panels to prevent it losing heat.

COMPATIBILITY WITH OTHER PRODUCTS

Mapefast CF/L is compatible with other MAPEI products used to make special concrete, especially the following:

- superplasticising admixtures from the **Dynamon**, **Mapefluid** and **Chronos** ranges;
- viscosity-modifying admixtures from the **Viscostar** and **Viscofluid** ranges used to make self-compacting concrete;
- **Mapeplast SF** silica fume-based powdered admixture used in the production of highly durable concrete and mortar;
- aerating agents from the **Mapeair** and **Mapeair AE** ranges used in the production of concrete resistant to freeze/thaw cycles;
- form-release products from the **Mapeform**, **Mapeform Eco** and **DMA** ranges used to strip concrete from formworks;
- all other types of mineral additives used in the production of self-compacting concrete.

CONSUMPTION

Dosage by volume:

the recommended dosage of **Mapefast CF/L** varies from 0.75 to 3 litres every 100 kg of cement, depending on the surrounding temperature and the mechanical properties required.

Different amounts to those recommended above must be tested beforehand on concrete and, in all cases, only after consulting MAPEI Technical Services.

PACKAGING

Mapefast CF/L is supplied in 6, 12 and 30 kg cans, 200 litre drums, 1,000 litre tanks, and in bulk quantities.

STORAGE

Mapefast CF/L may be stored for 24 months in sealed containers protected from freezing weather. If exposed to direct sunlight the colour of the product may change without affecting its performance characteristics

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Mapefast CF/L is corrosive and may cause damage to the eyes. It is harmful if swallowed. During use wear protective gloves and goggles and take the usual precautions for handling of chemicals. In case of contact with the eyes or skin wash immediately with plenty of water and seek medical attention.

For further and complete information about the safe use of our product please refer to the latest version of our Safety Data Sheet.

PRODUCT FOR PROFESSIONAL USE.

TECHNICAL DATA (typical values)	
PRODUCT IDENTITY	
Consistency:	liquid
Colour:	light yellow
Density according to ISO 758 (g/cm ³):	1.28 ± 0.03 at +20°C
Main action:	hardening accelerator
Classification according to UNI EN 934-2:	hardening accelerating admixture, Table 7
Classification according to ASTM C494:	type C
pH according to ISO 4316:	9.0 ± 1.0

Water-soluble chloride content according to EN 480-10 (%):	< 0.1 (absent according to UNI EN 934-2)
Alkali content (equivalent Na ₂ O) according to EN 480-12 (%):	< 2

WARNING

Although the technical details and recommendations contained in this product data sheet correspond to the best of our knowledge and experience, all the above information must, in every case, be taken as merely indicative and subject to confirmation after long-term practical application; for this reason, anyone who intends to use the product must ensure beforehand that it is suitable for the envisaged application. In every case, the user alone is fully responsible for any consequences deriving from the use of the product.

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

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.com.

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