

Mapefluid N100

Superplasticizer admixture with mild retarding action

DESCRIPTION

Mapefluid N100 is a liquid superplasticizing admixture for quality concrete (watertight, durable and high-strength).

WHERE TO USE

Due to the high workability (consistency class S4 and S5 according to EN 206-1) obtained without excess water in the mix, concrete with **Mapefluid N100** admixture is easy to place while fresh and has high performance characteristics when hardened.

Mapefluid N100 is especially suitable for all applications which require a retarded rate of cement hydration at early ages.

It is mainly used for the following:

- ready-mix concrete;
- pumped concrete;
- mass concrete.

Some application examples

In addition to its plasticizing effect, **Mapefluid N100** has a slight retarding action on the hydration of cement and is therefore particularly suitable for:

- ready-mix quality concrete for structures with R_{ck} higher than 25 N/mm²;
- ready-mix concrete for structures in reinforced and prestressed concrete exposed to aggressive agents: beams, columns, bridge-decks and viaducts;
- ready-mix concrete for watertight structures: purification plants, reservoirs, canals, tunnels, etc;
- mass pours where it is necessary to reduce thermal peaks caused by the heat generated in cement hydration: dams, foundations-mats for high-rise buildings, etc.

TECHNICAL CHARACTERISTICS

Mapefluid N100 is water solution of active polymers that disperse cement granules.

Retention of workability and set-retarding increase as the admixture dosage is increased.

RECOMMENDATIONS

Although there are no specific uses for which **Mapefluid N100** is unsuitable, the following are advantageous alternatives for:

- cold weather concreting, use **Mapefluid N200** or **Mapefluid IF328**;
- ready-mixed concrete with even lower slump loss, use **Mapefluid R104**, **Dynamon** or **Chronos**;
- preparing precast concrete, use **Mapefluid N200** and especially **Dynamon NRG** or **Dynamon SP**, which are more suitable for precast curing cycles.

APPLICATION PROCEDURE

It is preferable to add **Mapefluid N100** into the mixer after all the other ingredients (water, cement, aggregates). The action of the admixture is more effective when added later.

COMPATIBILITY WITH OTHER PRODUCTS

Mapefluid N100 is compatible with other products for producing special concrete, and especially with:

- air-entraining agents from **Mapeair AE** range for producing concrete resistant to freezing-thawing cycles;
- **Mapeplast SF**, micro-silica powder admixture for producing top-quality concrete with strength, durability and impermeability;

TECHNICAL DATA (typical values)

PRODUCT IDENTITY

Consistency:	liquid
Colour:	brown
Density according to ISO 758 (g/m ³):	1.15 ± 0.03 at +20°C
Main action:	high-range water reduction and/or improved workability
Collateral action:	initial retarding of hydration, retention of workability
Classification according to EN 934-2:	set retarding, high range water reducing, superplasticizer, tables 11.1 and 11.2
Classification according to ASTM C494:	Type G
Classification according to ASTM C1017:	Type II
Chlorides soluble in water according to EN 480-10 (%):	< 0.1 (absent according to EN 934-2)
Alkali content (Na ₂ O equivalent) according to EN 480-12 (%):	< 4.5
pH according to ISO 4316:	8.5

- **Expancrete**, expansive agent for producing shrinkage-compensating concrete;
- fly ash for producing concrete with artificial pozzolan;
- form-release agents from **Mapeform Eco** and **DMA** ranges for stripping concrete formwork;
- curing compounds from **Mapecure** range for protecting concrete flatwork against overly rapid water evaporation.

DOSAGE

Dosage by volume:

from 0.5 to 1.5 l per 100 kg of cement.
Different dosages from those suggested must be previously tested through concrete trials, in addition to consulting MAPEI Technical Services Department.

PACKAGING

Mapefluid N100 is available in bulk 200 l in drums, and 1,000 l tanks.

STORAGE

Mapefluid N100 can be stored for 12 months in closed containers. Protect from frost.

SAFETY INSTRUCTIONS FOR THE PREPARATION AND APPLICATION

Mapefluid N100 is not considered as dangerous according to the current regulation regarding the classification of mixtures. We recommend the use of protective gloves and goggles and to take the usual precautions for handling chemicals.

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.

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.

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



BUILDING THE FUTURE