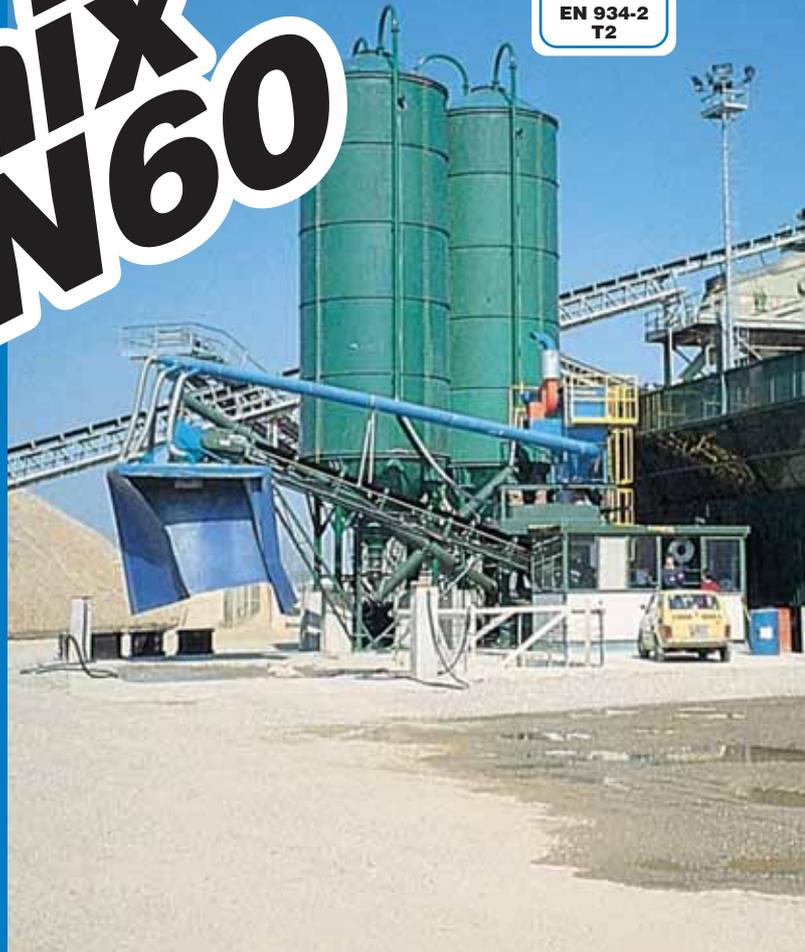


# Mapemix N60

**Versatile admixture  
for concrete  
with flexible dosage**



## DESCRIPTION

**Mapemix N60** is a versatile liquid admixture for concrete with flexible dosage that acts as a plasticiser at low dosages and as a superplasticiser at higher dosages, with no significant change in setting time.

## WHERE TO USE

Because of the high workability (consistency class S4 and S5 according to EN 206-1) obtained without excess water in the mix, concrete with **Mapemix N60** admixture is easy to place while fresh and has high performance characteristics when hardened.

**Mapemix N60** is suitable for all applications which require high workability and a low water/cement ratio.

Its uses are:

- for ready-mixed concrete (especially in cold weather);
- for pumped concrete.

## Some application examples

**Mapemix N60** is a plasticiser when employed in dosages from 0.3-0.7% and acts as a superplasticiser when employed in dosages from 0.8-1.2%.

**Mapemix N60** is particularly suitable for the following applications:

- ready-mixed quality concrete for structures with  $R_{ck}$  higher than 20 N/mm<sup>2</sup>;
- ready-mixed concrete for watertight structures (with a water/cement ratio no higher than 0.55): purification plants, reservoirs, canals, tunnels, etc.

## TECHNICAL CHARACTERISTICS

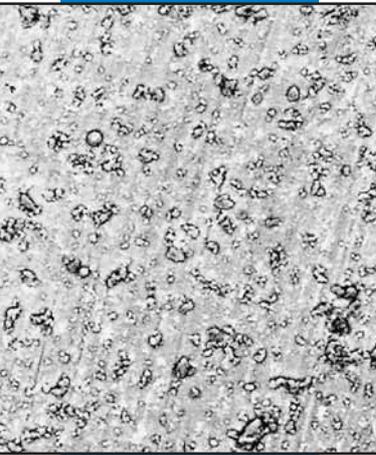
**Mapemix N60** is a 32% water solution of active polymers that disperse cement granules, combined with chloride-free inorganic catalysts to prevent set retarding.

**Mapemix N60's** dispersing action can be used in three ways:

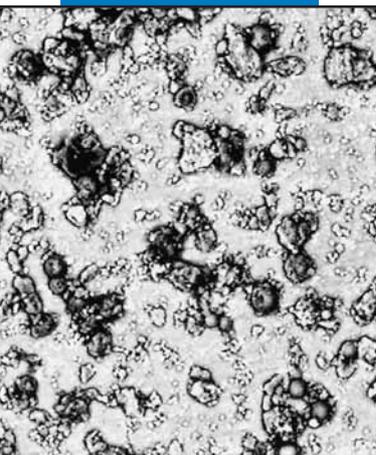
- to reduce mixing water only* compared with that of plain concrete with the same workability for increased strength, reduced permeability to water and improved durability;
- to improve workability* compared with that of plain concrete with good performance characteristics that is otherwise difficult to place (stiff or plastic concrete);
- to reduce both water and cement* (in equal proportions) so that the water/cement ratio and concrete performance are not changed in comparison with those of plain concrete without admixture: in this case, there are both economic advantages (the cost of the admixture is lower than the saving on cement), and technical improvements, due to reduction in drying shrinkage, creep and thermal stress caused by the heat developed during cement hydration. This method is especially recommended for concrete with high cement factor (> 350 kg/m<sup>3</sup>).

Fig. 2 illustrates three ways of using **Mapemix N60**. **Mapemix N60's** special action can be adjusted to obtain the results required (increased strength,

# Mapemix N60



A



B

Fig. 1 - Water suspension of cement with (A) and without (B) superplasticiser

improved workability, reduced cement factor) by varying the admixture dosage between 0.3% and 1.2% by weight of cement. The greater the dosage, the greater the effect.

## RECOMMENDATIONS

Although there are no specific uses for which **Mapemix N60** is unsuitable, the following are advantageous alternatives:

- for producing ready-mixed concrete, especially in hot weather, **Mapemix R64**, **Mapefluid R104** and the products of **Dynamon SR** range are more suitable for maintaining initial workability of the mix;
- for precast concrete, the products of **Dynamon SP** range may be used.

## DIRECTIONS FOR USE

It is preferable to add **Mapemix N60** into the mixer after all the other ingredients (water, cement, aggregates). The action of the admixture is more effective when added later.

**Mapemix N60** is most effective when cement and aggregate grains are already wet, and least effective when the admixture is mixed with dry solids which absorb some of it (especially if they are porous) and partially reduce its effectiveness. It is advisable to

begin adding the admixture with an automatic dispenser when at least half of the water required for the mix has been introduced into the mixer.

Some users prefer to add the admixture at the job-site just before pouring when the admixture's action is most effective (provided the solid ingredients are already wet), but it must be mixed evenly throughout the concrete by spinning the cement mixer at maximum speed for a sufficient period of time.

It is worth noting that with a dosage of 1% it is possible to transform plastic concrete (5-9 cm of slump) into self-levelling concrete (22 cm of slump).

## Compatibility with other products

**Mapemix N60** is compatible with other products for producing special concrete, and especially with:

- **Mapeplast PT1** and **Mapeplast PT2** the air-entraining agents for producing concrete resistant to freeze thaw cycles;
- **Mapeplast SF**, the micro-silica powder admixture for producing top-quality concrete with strength, durability and impermeability;

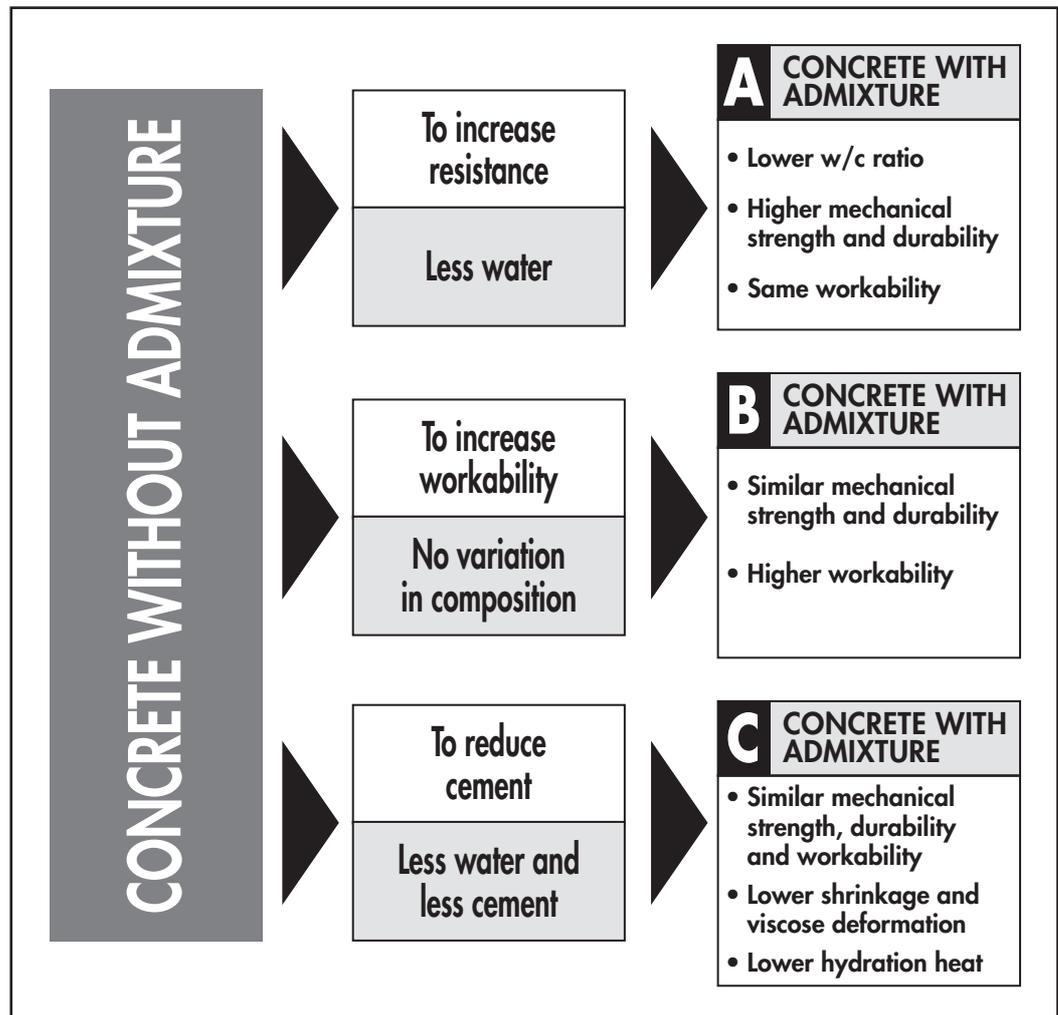


Fig. 2 - Three different ways to take advantage of Mapemix N60 admixture

## TECHNICAL DATA (typical values)

### PRODUCT IDENTIFICATION

<b>Consistency:</b>	liquid
<b>Colour:</b>	brown
<b>Density according to ISO 758 (g/cm<sup>3</sup>):</b>	1.15 ± 0.03 at +20°C
<b>Dry content according to EN 480-8 (%):</b>	32 ± 1.6
<b>Specific action:</b>	water reduction and/or improved workability
<b>Collateral action:</b>	no
<b>Classification according to EN 934-2:</b>	water reducing, plasticizer, table 2
<b>Chlorides soluble in water according to EN 480-10 (%):</b>	< 0.1 (absent according to EN 934-2)
<b>Alkali content (Na<sub>2</sub>O equivalent) according to EN 480-12 (%):</b>	< 5
<b>Storage:</b>	12 months in original unopened packaging. Protect from frost
<b>Hazard classification according to EC 1999/45:</b>	none. Before using refer to the "Safety instructions for preparation and application" paragraph and the information on the packaging and Safety Data Sheet
<b>Customs class:</b>	3824 40 00

- **Expancrete**, the expansive agent for producing shrinkage-compensated concrete;
- fly-ash for producing concrete with artificial pozzolan;
- **DMA 1000**, **DMA 2000** or **DMA 3000** Form-Release Agents for stripping concrete formwork;
- **Mapecure E** and **Mapecure S** the curing compounds for protecting concrete flatwork (floors, for example) against overly rapid water evaporation.

### DOSAGE

#### Dosage by volume:

From 0.3 to 1.2 l per 100 kg of cement.

### PACKAGING

**Mapemix N60** is available in bulk, in 200 l buckets or 1,000 l tanks.

### STORAGE

Store in closed containers, protect from frost.

### SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Mapemix N60 is not considered as

dangerous according to the European regulation regarding the classification of preparations. It is however recommended to use gloves, eyes protection and to take the usual precaution taken when handling chemical products are recommended. The Safety Data Sheet is available upon request for professional users.

FOR PROFESSIONALS.

### WARNING

*Although the technical details and recommendations contained in this report 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 intending 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 use of the product.*

**All relevant references  
for the product are available  
upon request and from  
[www.mapei.com](http://www.mapei.com)**

**Mapemix  
N60**



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