

# Mapeplast Super

## Integral waterproofing and plasticizing admixture for concrete and mortar

### DESCRIPTION

**Mapeplast Super** is an integral waterproofing and plasticizing admixture for concrete and mortar.

### WHERE TO USE

**Mapeplast Super** is recommended for concrete with medium compressive strength ( $R_{ck}$  20-30 MPa).

**Mapeplast Super** is especially recommended for applications which require a retarded rate of cement hydration at early ages.

Its principal uses are for:

- for protective screeds of cement, sand mortar used in waterproofing;
- internal and external plaster of buildings for waterproofing;
- for production of dense concrete;
- ready-mix concrete (especially in hot weather);
- pumped concrete;
- mass concrete.

### Some application examples

In addition to its plasticizing and waterproofing effect, **Mapeplast Super** has a slight retarding action on the hydration of cement and is therefore

especially recommended for:

- ready-mix concrete for watertight structures (with a water/cement ratio not higher than 0.55), purification plants, reservoirs, canals, tunnels, etc;
- mass pours in concrete elements 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

**Mapeplast Super** is a water solution of active polymers which disperse cement granules.

**Mapeplast Super** special action can be adjusted to achieve the results required (increased strength, improved workability, reduced cement dosage) by varying the dosage between 0.2% and 0.5% by weight of cement: the greater the dosage, the greater the effect. Retention of workability and set-retardation increase as the admixture dosage is increased.

As an integral waterproofer use it at a dosage of 0.4% by weight of cement (i.e. 0.2kg per 50 kg of cement).

### APPLICATION PROCEDURE

It is preferable to add **Mapeplast Super** into the gauging water and then into the mixer after all the other ingredients (water, cement, aggregates). The

TECHNICAL DATA (typical values)	
<b>PRODUCT IDENTITY</b>	
<b>Consistency:</b>	liquid
<b>Colour:</b>	brown
<b>Specific gravity according to ISO758 :</b>	1.050 ± 0.02
<b>pH:</b>	7.7 ± 1.0
<b>Specific action:</b>	water reduction and/or improved workability
<b>Collateral action:</b>	slight retarding of initial hydration rate and retention of workability
<b>Classification according to EN 934-2:</b>	water reducing, plasticizing admixture
<b>Classification according to ASTM C494</b>	type D standard
<b>Classification according to IS : 2645</b>	confirms
<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>	< 5.0

action of the admixture is more effective when added later.

**Mapeplast Super** is most effective when cement and aggregate particles are already wet, and least effective when the admixture is mixed with dry solids, especially if porous, which partially adsorb it. It is advisable to begin adding the admixture with an automatic dispenser when at least half the water required for the mix has been introduced into the mixer.

#### COMPATIBILITY WITH OTHER PRODUCTS

**Mapeplast Super** is compatible with other products for producing special concrete, and especially with:

- **Mapeair** air entraining agents for producing concrete resistant to freeze-thaw cycles;
- **Mapeplast SF**, micro-silica powder admixture for producing top quality concrete with strength, durability and impermeability;
- **Mapecure** curing compounds for preventing rapid evaporation of mix water in concrete flatworks (e.g. floors);

- form release agents from the **Mapeform Eco** range or **DMA 1000**, used for stripping formwork from concrete;
- fly ash for producing concrete with artificial pozzolan.

#### DOSAGE

##### Dosage:

For waterproofing, dosage is 0.200 kg per 50 kg bag of cement.

The quantity of water required in a mix having **Mapeplast Super** depends on the type of fine and coarse aggregates used. In case engineered or fine sand is used the quantity of water required will be less whereas if crushed sand or dust is used as fine aggregate more water will be required in the mix. In such cases a starting w/c ratio of 0.5 may be adopted to start with in addition to **Mapeplast Super**. However site trials are always recommended. Different dosages from those suggested must be previously tested through concrete trials, in addition to consulting MAPEI Technical Services Department.

#### PACKAGING

**Mapeplast Super** is available in 0.200 kg X 24

0.500 kg X 12  
1 kg X 12  
5 kg X 4  
10 kg X 1  
20 kg X 1

also available in bulk on request.

#### **STORAGE**

Store in closed containers; protect from rain, frost and direct sunlight.

Best before 12 months from the date of manufacturing.

#### **SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION**

**Mapeplast Super** is not considered dangerous according to the current regulation regarding the classification of mixtures. It is however recommended to use gloves, eyes protection and take the usual precaution taken when handling chemical products.

For further and complete information about the safe use of our product please refer to the latest version of our Material 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](http://www.mapei.com)**

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

**Mapeplast  
Super**



**BUILDING THE FUTURE**

Any reproduction of texts, photos and illustrations published here is prohibited and subject to prosecution

**6993-1-2016 (GB X IN)**