

# Mapeplast R10

## Plasticizing admixture for concrete with retarding effect

### DESCRIPTION

**Mapeplast R10** is a liquid plasticizing admixture with retarding effect for concrete.

### WHERE TO USE

**Mapeplast R10** is recommended for concrete with medium compressive strength (Rck 20-30 MPa).

**Mapeplast R10** is especially recommended for applications which require a retarded rate of cement hydration at early ages.

Its principal uses are for:

- ready mix concrete (especially in hot weather);
- pumped concrete;
- mass concrete.

### Some application examples

In addition to its plasticizing effect, **Mapeplast R10** has a slight retarding action on the hydration of cement and is therefore especially recommended for:

- ready mix quality concrete (for classes of compressive strength Rck higher than 20 MPa);
- ready-mixed concrete for waterproof structures (as long as the water/cement ratio is no higher than 0.55): depuration tanks, storage tanks, channels, tunnels, etc.

### TECHNICAL CHARACTERISTICS

**Mapeplast R10** is a water solution of active polymers which disperse cement granules.

Whatever the objective to be achieved (improved performance levels, better workability or a reduction in the amount of cement), the effect of the advantages from using **Mapeplast R10** may be modulated by varying the dosage from 0.2 to 0.5% of the weight in cement.

The higher the dose, the higher the effect. Its effect on

the maintenance of workability (as well as the delay in setting) is higher if the amount of admixture is higher.

### APPLICATION PROCEDURE

It's preferable to add **Mapeplast R10** 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

**Mapeplast R10** is compatible with other products for producing special concrete, and especially with:

- aerating admixes from the **Mapeair AE** range used in the production of concrete resistant to freeze/thaw cycles;
- chloride-free, hardening-accelerator admixtures from the **Mapefast** range to reach high mechanical strength after short curing cycles, including in cold climates;
- setting retardants from the **Mapetard** range used in the production of concrete with controlled setting times and to extend its workability;
- **Mapeform Eco and DMA** form-release agents for releasing concrete formwork;
- **Mapecure** curing compounds for preventing rapid evaporation of mix water.

### DOSAGE

#### Dosage by volume:

from 0.2 to 1.0 ltr 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.

TECHNICAL DATA (typical values)	
<b>PRODUCT IDENTITY</b>	
Consistency:	liquid
Colour:	brown
Specific gravity according to ISO 758 (g/cm <sup>3</sup> ):	1.18 ± 0.03 at + 20°C
pH:	7.0 ± 1.0
Specific action:	water reduction and/or improved workability
Collateral action:	retarding of initial hydration rate and retention of workability
Classification according to EN 934-2:	set retarding / water reducing / plasticizing admixture, table 10
Classification according to ASTM C494	type D
Chlorides soluble in water according to EN 480-10 (%):	< 0.1 (absent according to EN 934-2)
Alkali content (Na <sub>2</sub> O equivalent) according to EN 480-12 (%):	< 6

### PACKAGING

Mapeplast R10 is available in 200 ltr drums or in 1,000 ltr tanks.

### STORAGE

Mapeplast R10 can be stored for 12 months in its original packaging, protected from frost.

### SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Mapeplast R10 is not considered dangerous according to the regulations regarding the classification of mixtures. It is however recommended to use gloves, eye protection and to take the usual precautions 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)**



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