

# Dynamon HAA

## Chloride-free hardening accelerating admixture for concrete

### DESCRIPTION OF PRODUCT

**Dynamon HAA** is a liquid admixture based on highly effective hardening accelerators, free of chlorides.

**Dynamon HAA** must be used in addition to concretes already admixed with superplasticizers based on modified acrylic polymers from the **Dynamon** range.

### WHERE TO USE

**Dynamon HAA** is especially suitable for reaching very high mechanical strengths at early age, even at low temperatures.

In the precast industry, **Dynamon HAA** used with a superplasticizing admixture from the **Dynamon NRG** range, helps reaching very high mechanical strengths in the absence of steam curing and during the winter months, with ambient temperatures lower than +10°C.

**Dynamon HAA** can be used to accelerate the development of mechanical strengths in self-compacting concrete. In this case the product must be used in conjunction with a superplasticizer from the **Dynamon** range and with the viscosity modifying admixtures **Viscofluid SCC/10** or **Viscostar 3K**.

**Dynamon HAA** may also be used to speed up the removal of form-work and to reduce the movement times during the production of vibro-compressed concrete, such as hollow-core floor slabs, self-locking slabs and kerb stones.

Furthermore, **Dynamon HAA** can be used advantageously, in conjunction with a superplasticizing admixture from the **Dynamon SR** or **Dynamon SX** range, to reduce curing time and therefore the release from formworks of concrete placed in cold climates.

### TECHNICAL CHARACTERISTICS

**Dynamon HAA** consists of a water solution of special catalysts that can accelerate the hardening reaction of the cement and promote a rapid development of the temperature inside the concrete.

### APPLICATION PROCEDURE

**Dynamon HAA** must be added after the other mixture ingredients (cement, aggregates, mineral addition or filler and at least 80% of the mixing water) and at the same time as the **Dynamon** superplasticizing admixture.

### COMPATIBILITY WITH OTHER PRODUCTS

**Dynamon HAA** is not a superplasticizer, therefore it preferably must be used combined with a superplasticizer based on modified acrylic polymer from the **Dynamon** range.

**Dynamon HAA** is compatible with other products for preparing special concretes, especially with:

- **Viscofluid SCC/10** or **Viscostar 3K** viscosity modifying admixtures for manufacturing self-compacting concretes;
- **Mapeplast SF**, silica fume based powder admixture for manufacturing “top-quality” concrete (strength, impermeability, durability);
- **Expancrete**, expansive agent for manufacturing shrinkage compensated concrete;
- different types of limestone fillers for manufacturing

## TECHNICAL DATA (typical values)

### PRODUCT IDENTITY

Consistency:	liquid
Colour:	light yellow
Density according to ISO 758 (g/cm <sup>3</sup> ):	1.28 ± 0.03 at +20°C
Main action:	acceleration of mechanical strengths at early age and at temperatures < 10°C
Classification according to EN 934-2:	hardening accelerating admixture, table 7
Classification according to ASTM C494:	type C
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 (%):	< 2.0

self compacting concrete and any other type of concrete that requires these fillers;

- form release agents of **Mapeform Eco** and **DMA** ranges for releasing concrete from formworks;
- curing emulsions of **Mapecure** product range to protect form-released concrete structures from rapid water evaporation (floorings).

### DOSAGE

#### Dosage by volume:

from 1 to 3 litres per 100 kg of cement according to the temperature and mechanical strengths that need to be reached. Different dosages from those suggested must be previously tested through concrete trials, in addition to consulting MAPEI Technical Services Department.

### PACKAGING

**Dynamon HAA** is available in bulk, 200 l drums, 1000 l tanks.

### STORAGE

Store **Dynamon HAA** 12 months if in sealed containers and protect from frost.

### SAFETY INSTRUCTIONS FOR THE PREPARATION AND APPLICATION

**Dynamon HAA** is harmful if swallowed. It can cause damage to eyes. During application it is recommended to use protective gloves and goggles and to take the usual precautions

for handling chemical products. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. 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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