

# Dynamon EW

## Admixture to maintain the consistency of ready-mixed concrete for extended periods

### PRODUCT DESCRIPTION

**Dynamon EW** is a chemical admixture based on modified acrylic polymer that allows to extend the workability of concrete without affecting the development of early mechanical strength.

### WHERE TO USE

**Dynamon EW** is used mainly in the ready-mixed concrete whenever a concrete with an extended workability retention is required, when the concrete properties must be preserved over long distances and when the concrete must comply with certain technical specifications. The properties of **Dynamon EW** make it ideal for preparing special types of concrete and particularly for:

- fluid concrete;
- self-compacting concrete;
- high performance concrete;
- fair face concrete.

### TECHNICAL CHARACTERISTICS

**Dynamon EW** is an admixture made of modified acrylic polymers in water solution with zero formaldehyde content. Thanks to its special molecular structure, the polymer is gradually released in the cementitious system and helps concrete maintain the same consistency for long time. Once the **Dynamon EW** completes its action and the

concrete starts setting, the hardening process develops without delay and mechanical strength at early age compared with a control mix, are similar.

**Dynamon EW** combines its excellent ability to maintain workability with a small water reduction effect which increases with increasing dose.

### HOW TO USE THE PRODUCT

The product is supplied ready-to-use in liquid form. **Dynamon EW** is more effective if added to wet concrete. It may be added with the mixing water, or with part of the mixing water, after all the other components in the mix (cement, aggregates, mineral additives, etc.). After adding **Dynamon EW** we recommend extending mixing time by at least two minutes so that the product is distributed evenly throughout the mix.

### COMPATIBILITY WITH OTHER PRODUCTS

**Dynamon EW** is an acrylic polymer-based product and is compatible with most MAPEI S.p.A. admixtures for concrete. It is strongly recommended not to use the product in combination with a superplasticiser based on naphthalene sulfonate (BNS).

**Dynamon EW** may stand alone in concrete with class of consistency S2 and S3. It should preferably be used in combination with a super-plasticiser from the **Dynamon** range to achieve higher consistency classes.

## TECHNICAL DATA (typical values)

### PRODUCT IDENTITY

<b>Consistency:</b>	liquid
<b>Colour:</b>	amber
<b>Density according to ISO 758 (g/cm<sup>3</sup>):</b>	1.04 ± 0.02 at +20°C
<b>Main action:</b>	extension of workability and reduction of the mixing water
<b>Classification according to EN 934-2:</b>	water reducing/plasticising admixture according to table 2
<b>Classification according to ASTM C494:</b>	type A
<b>Classification according to ASTM C1017:</b>	type I
<b>Water-soluble chloride content according to EN 480-10 (%):</b>	< 0.1 (absent according to UNI EN 934-2)
<b>pH according to ISO 4316:</b>	6.0 ± 1.0
<b>Alkali content (equivalent Na<sub>2</sub>O) according to EN 480-12 (%):</b>	< 2.0

**Dynamon EW** is also compatible with the following products for preparing special concrete:

- viscosity-modifying admixtures from the **Viscostar** and **Viscofluid** range used to make self-compacting concrete;
- set-retard admixtures from the **Mapetard** range;
- **Mapeplast SF** silica fume-based powdered admixture used in the production of highly durable concrete;
- **Expancrete** expanding agent used in the production of shrinkage-compensated concrete;
- fly-ash, lime-based fillers, blast furnace slag and Pozzolan;
- form-release compounds from the **Mapeform Eco** range and **DMA** for stripping formwork from concrete;
- curing agents from the **Mapecure** range used to protect concrete against quick evaporation of the mixing water.

Our Technical Services Department is available to advise on the most suitable product from the **Mapeair AE** range to

produce concrete resistant to freeze-thaw cycles according to the type of cement used.

### DOSAGE

#### Dosage in volume

Typical doses are between 0.2 and 2.0 litres every 100 kg of cement. Extra dosages may be used up to 2.5 litres every 100 kg of cement. Different dosages from those recommended must be previously tested on concrete and, anyway, only after consulting MAPEI S.p.A. Technical Services.

### RECOMMENDATIONS

The dosages may change according to the surrounding temperature, the materials used, the mix design and the workability time required by the specifications. The fixed dosage must always be tested before using it in production on an industrial scale.

### PACKAGING

**Dynamon EW** is available in 200 litre drums, 1,000 litre tanks and in bulk quantities.

### STORAGE

**Dynamon EW** may be stored for 12 months in sealed containers protected from frost. If stored at temperature lower than +5°C

the product may crystallise, but if heated up and mixed the technical properties of the product will not be affected. If exposed to direct sunlight the colour of the product may change without affecting its performance characteristics.

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

**Dynamon EW** is not considered hazardous according to current norms and guidelines regarding the classification of mixtures.

It is recommended to use 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 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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EW**



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