

# DYNAMON MS 100

Acrylic-based admixture for concrete with difficult materials

## DESCRIPTION

**Dynamon MS 100** is a polymer-based admixture specifically developed for ready-mixed concrete with aggregates with high content of fine parts and extremely problematic minerals. **Dynamon MS 100** meets and exceeds the requirements of AS1478.1 Type HWRRre.

## WHERE TO USE

**Dynamon MS 100** is mainly used in concrete plants in order to produce fluid concrete negatively affected by aggregates. Having fine, marly and clay origin aggregates in the mix can determine a higher demand of water than the actual quantity necessary for concrete. Furthermore some minerals might sometimes make superplasticising admixture less efficient. Thanks to its special formulation, **Dynamon MS 100** is able to prevent the negative effects generated from aggregates and can help enhance the overall characteristics of the mixture, thus improving the performance of superplasticisers. The dosage of **Dynamon MS 100** may vary according to the material characteristics. Such variations will not however affect the concrete characteristics.

Furthermore **Dynamon MS 100**, when used in combination with a water reducer from the MAPEFLUID and MAPETARD range, allows a longer workability retention of the mix. The performance characteristics of Dynamon MS 100 and its high flexibility make it suitable for concrete production of any type. In particular, it may be used for the production of:

- high consistency concrete;
- self-consolidating concrete;
- pumped concrete;
- fair face concrete.

## TECHNICAL CHARACTERISTICS

**Dynamon MS 100** is a formaldehyde-free acrylic polymer-based admixture which is modified in an aqueous solution. When using with highly absorbent aggregates, **Dynamon MS 100** is able to lower overall water demand, thus optimising the characteristics of its mix and enhancing the efficiency of superplasticiser aggregates. Proper use of **Dynamon MS 100** implies clear advantages, such as:

- use of dirty aggregates;
- lower dosage of superplasticisers;
- higher performance;
- extension of workability times;
- higher fluidity.

**Dynamon MS 100** is classified as a High Range Water Reducing Set Retarding (HWRRre) admixture, in accordance with AS1478.1. This product can both stand alone or be combined with a water reducer or retarder from the Mapefluid or Mapetard range.

## APPLICATION OF THE PRODUCT

**Dynamon MS 100** is supplied in a ready-to-use liquid form. It is most effective if applied in fluid concrete with a superplasticiser. Add **Dynamon MS 100** directly to the mixing water or right after all the other components (e.g. cement, aggregates, mineral additives) have been added. After adding Dynamon MS 100, we recommend extending mixing time to ensure an even distribution in the mix.

## COMPATIBILITY WITH OTHER PRODUCTS

**Dynamon MS 100** is compatible with all types of cement. **Dynamon MS 100** is also compatible with the following MAPEI products used to make special concrete:

- water reducers from the Mapefluid range;
- viscosity-modifying admixtures from the **Viscostar** and **Viscofluid** range used to make self-consolidating concrete;
- set retarding admixture from the **Mapetard** range;
- **Mapeplast SF** silica fume-based powdered admixture used in the production of high durability concrete;
- **Expocrete** 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** used to strip formwork from concrete;
- curing agents from the **Mapecure** range used to protect concrete from rapid water evaporation.

When manufacturing freeze-resistant concrete, our Technical Services Department is available to provide you with qualified consultation on the most suitable product to use from **Mapeair AE**, in accordance with the type of cement used.

## DOSAGE

**Dosage by volume:**

Typical dosage is between 0.2 and 2.0 litres every 100 kg of cement. Amounts other than those recommended above are allowed only if previously tested and after consulting the MAPEI Technical Services Department.

## PACKAGING

**Dynamon MS 100** is available in bulk quantities, 200 litre drums and 1000 litre IBC's

## STORAGE

**Dynamon MS 100** may be stored at temperatures between +5°C to +35°C in sealed containers for 12 months. It is recommended to protect from frost. If exposed to direct sunlight the colour of the product may change without compromising the performance characteristics of the product.

TECHNICAL DATA (typical values)	
PRODUCT IDENTITY	
Form:	aqueous solution of modified polycarboxylates
Colour:	brown
Density:	1.07 ± 0.02 at +20°C
Main action:	workability extension and mixing water reduction
pH:	5.0 ± 1.0
Chloride content:	no added chlorides
TEA content:	does not contain TEA

## SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

**Dynamon MS 100** is not considered dangerous according to current regulations regarding the classification of mixtures. It is recommended to wear protective gloves and goggles and to take the usual precautions for handling of chemicals. For further and complete information about the safe use of our product please refer to the latest version of our Safety Data Sheet available for download from our website at [www.mapei.com.au](http://www.mapei.com.au).

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)

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