



Mapeair Zero

Air-detraining admixture for concrete

DESCRIPTION

Mapeair Zero is a liquid admixture made from modified polysiloxanes. When added to any type of concrete mix it reduces the formation of pinholes, bubbles and air pockets formed during the mixing and application phases. The de-aerating effect of **Mapeair Zero** increases the density of concrete, leading to higher compressive strength, lower porosity and permeability and, therefore, improved durability. By eliminating the excess air bubbles, the overall appearance of exposed concrete is improved and the surface of poured concrete is more compact and even.

WHERE TO USE

Mapeair Zero may be used in both ready-mix and precast concrete. It also gives good results when used to make self-compacting concrete and in the production of mortar.

TECHNICAL CHARACTERISTICS

Mapeair Zero eliminates unwanted entrained air without affecting fluidity or setting times. **Mapeair Zero** has no plasticising capacity, so when used in fluid and super-fluid concrete, it must always be added in combination with a super-plasticising admixture. In special cases, where the workability of the concrete is improved by its air content, adding **Mapeair Zero** to the mix may require a slight increase in the amount of super-plasticiser.

COMPATIBILITY WITH OTHER PRODUCTS

Mapeair Zero is compatible with other products used in the production of high quality concrete, particularly the following:

- all the plasticising and superplasticising admixtures from the **Mapeplast**, **Mapefluid**, **Dynamon** and **Dynamon NRG** ranges used to improve plasticity and mechanical strength;
- chloride-free, hardening accelerating admixtures from the **Mapefast** range to achieve very high mechanical strength after short curing cycles;
- **Viscofluid SCC/10** and **Viscostar 3K** viscosity modifiers used for making for self-compacting concrete;
- the powdered admixtures **Mapeplast SF** and **Mapeplast PZ300** used in the production of concrete with high durability;
- **Expancrete** expansive agent used in the production of shrinkage-compensating concrete;
- type I and II admixtures according to EN 206.
- form-releasing agents from the **DMA** range and **Mapeform Eco** used to demould formworks from concrete;
- curing agents from the **Mapecure** range used to protect concrete against quick evaporation of the mixing water.

RECOMMENDATIONS

It is recommended not to use **Mapeair Zero** in combination with air-entraining admixtures from the **Mapeair AE** range; its air-detraining effect blocks the formation of micro-bubbles generated by the air-entraining agent.

It is also recommended not to use **Mapeair Zero** in concrete resistant to freeze/thaw cycles from exposure classes XF2, XF3 and XF4 specified in EN 206 standards.

TECHNICAL DATA (typical values)

PRODUCT IDENTITY

Consistency:	liquid
Colour:	white
Density ISO 758 (g/cm ³):	1.00 ± 0.02 at +20°C
pH content according to ISO 4316:	7 ± 1
Specific action:	reduces unwanted entrained air
Chlorides soluble in water according to EN 480-10 (%):	< 0.1
Alkali content (Na ₂ O equivalent) according to EN 480-12 (%):	< 3.0

HOW TO USE

Mapeair Zero may be added to concrete anytime during the mixing phase, to the mixing water or directly in the concrete of mixer truck or of pre-mixing unit. It is recommended extending mixing time until a well-blended mix is obtained and the admixture is evenly dispersed.

IMPORTANT NOTICE

Due to its characteristics, it is recommended to shake **Mapeair Zero** before use, in order to maintain its homogeneity.

CONSUMPTION

Dosage by weight:

from 0.1% to 0.7% by weight of cement (for conventional concrete).

PACKAGING

Mapeair Zero is available in 1000 litre tanks, 200 litre drums, and 25 kg and 10 kg buckets.

STORAGE

Mapeair Zero may be stored for 12 months in a sealed container protected from frost and sources of heat. **Mapeair Zero**'s colour may change in time, without altering its performance characteristics.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Mapeair Zero is irritant for the eyes. During use wear protective gloves and goggles and take the usual precautions for handling chemicals. In case of contact with the eyes or the skin was immediately with plenty of water and seek medical attention. 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

LEGAL NOTICE

The contents of this Technical Data Sheet ("TDS") may be copied into another project-related document, but the resulting document shall not supplement or replace requirements per the TDS in force at the time of the MAPEI product installation.

The most up-to-date TDS can be downloaded from our website www.mapei.com.

ANY ALTERATION TO THE WORDING OR REQUIREMENTS CONTAINED OR DERIVED FROM THIS TDS EXCLUDES THE RESPONSIBILITY OF MAPEI.

All relevant references for the product are available upon request and from www.mapei.com



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