



Product information sheet

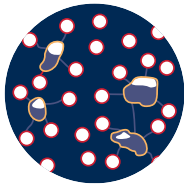
AIRKEM AE1000

Airkem AE1000 is a highly soluble, powder-based admixture designed to entrain ultra-stable micro air voids in a range of mortars including; dry silo mortar (DSM), render and plaster to improve the workability and long term durability.

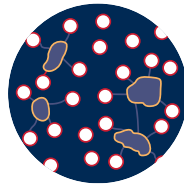
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DESCRIPTION

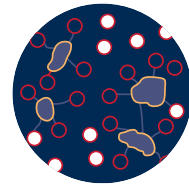
Airkem AE1000 is a high-grade synthetic powder-based admixture, that has been formulated to create small, stable air bubbles in mortar, greatly improving the performance in its plastic and hardened state. **Airkem AE1000** combines excellent air entrainment properties with high solubility to provide excellent dosage efficiency.



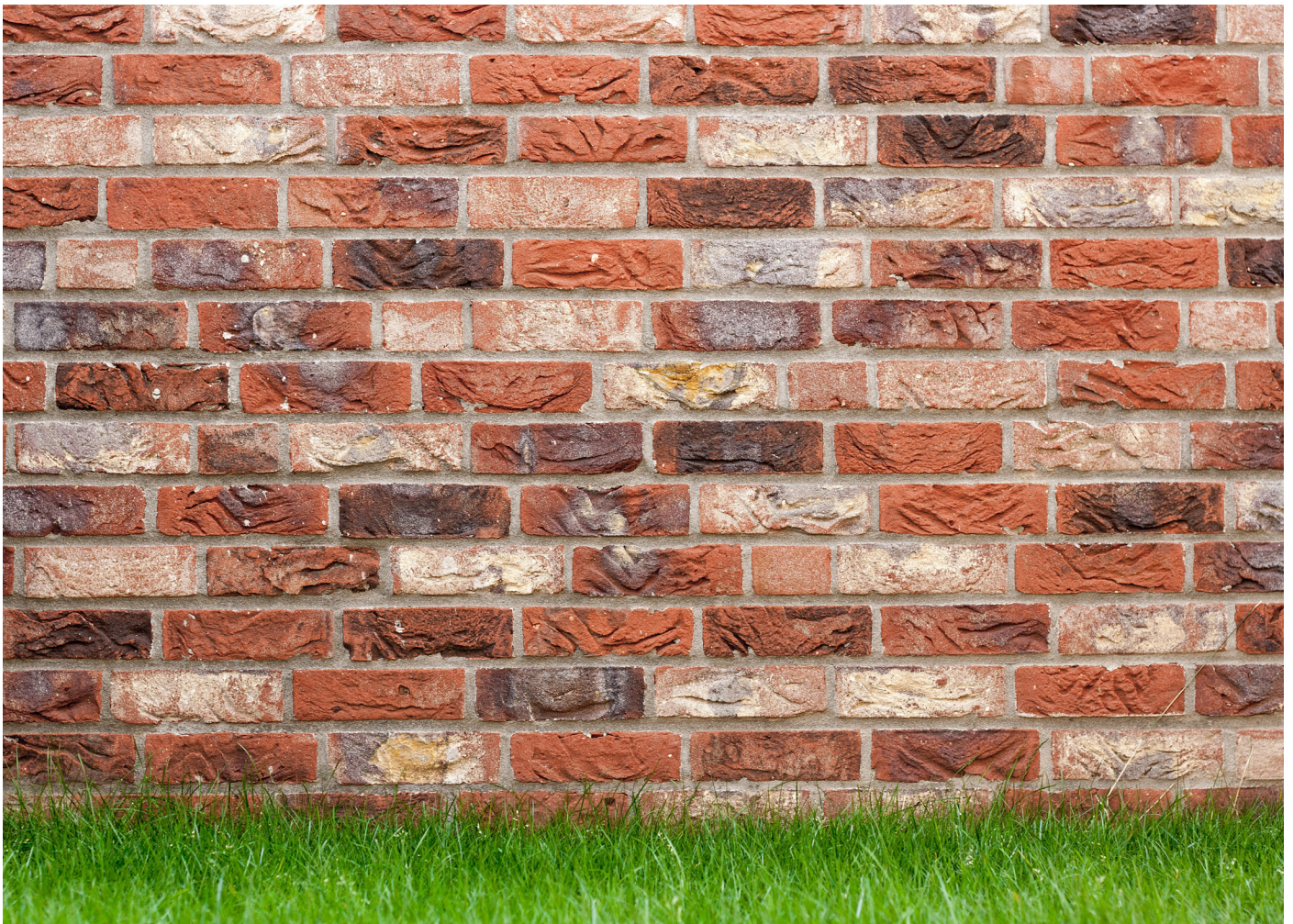
As temperatures drop, pores created by air entrainment allow the water a place to go as it freezes.



During freezing, water in the capillary pores expands; however, water is also going towards air entrained pores.



Under pressure, the water will be pushed into the air entrainment pores and not crack the mortar joint.

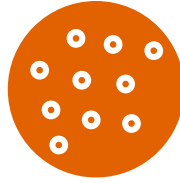


BENEFITS

Key benefits of **Airkem AE1000** are:



**EXCELLENT WETTING AND
DISPERSION CAPACITY**



**EXCELLENT AIR VOID
STABILITY**



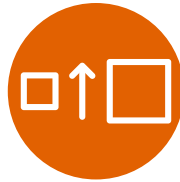
**IMPROVES WORKABILITY
OF FRESHLY MIXED
MORTARS**



**INCREASES RETENTION OF
MIXING WATER**



**REDUCES
SEGREGATION**



**INCREASES
YIELD**



**IMPROVES DURABILITY OF
HARDENED MORTAR**

APPLICATIONS

Airkem AE1000 is suitable for use in a wide range of mortar including; dry silo mortars, renders and plaster.

Airkem AE1000 can be used on it's own or together with Cemkem's complete mortar admixture package.*

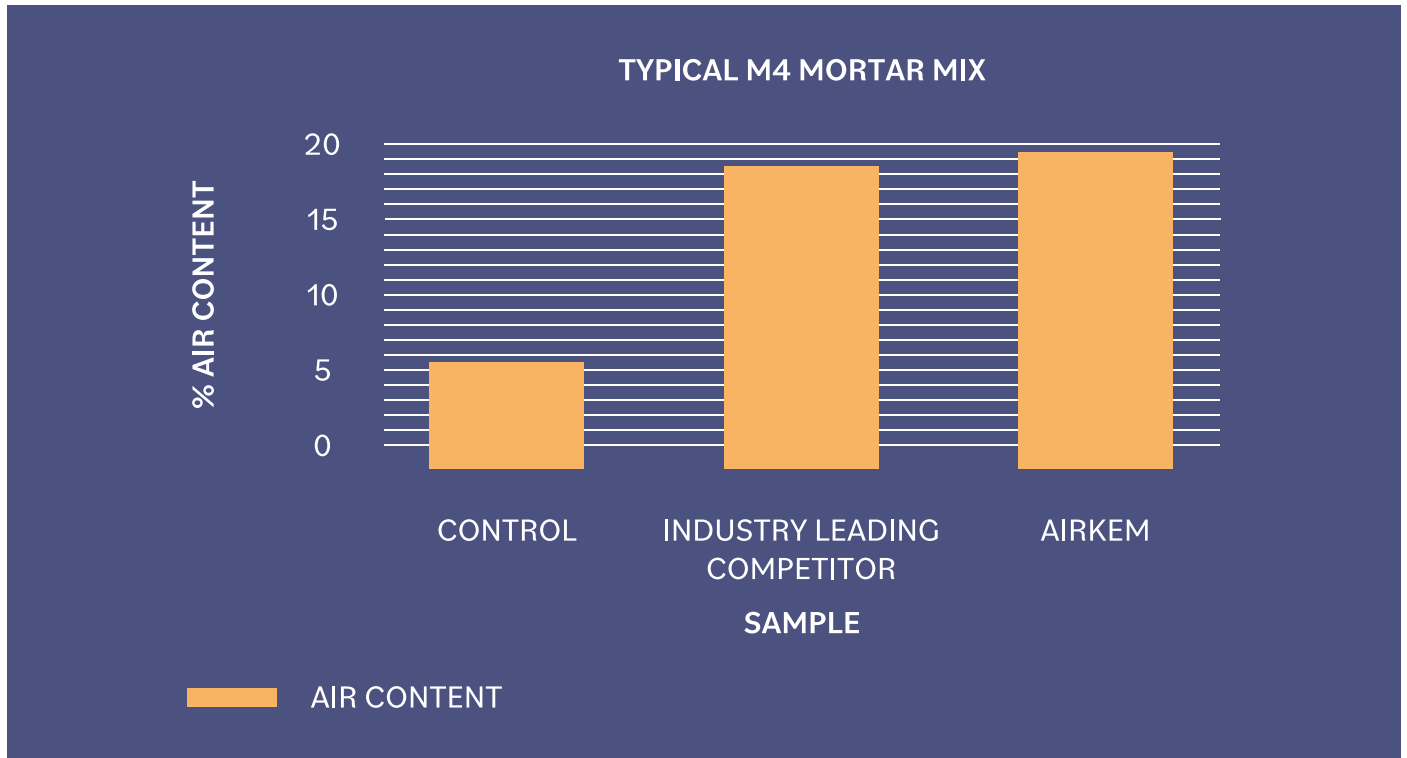
**see Cemkem Hydrokem and Hydropel.*



PERFORMANCE

The following graph shows the performance of Airkem against a standard M4 mix design without admixture (control) and industry standard air entrainer. Test shows a potential for reduced dose when using Airkem.

Tests were carried out in accordance with BSEN 1015.



ADDITION RATES

The dosage rate is dependent on mix design, mixing processes, raw materials including aggregate gradings and fines content. For typical mortar applications;

- 0.01% - 0.05% by weight of cement. *

**Suggested doses will aim produce air contents of between 15.0 - 20.0% however, trials to optimise air entrainer dose should be conducted.*



STORAGE

Airkem AE1000 is a hygroscopic powder and therefore, should be kept cool and dry in its original packaging, protected against damage and pressure to avoid lumping. This product may be stored for at least 24 months in original packaging.

PACKAGING

Airkem AE1000 is supplied in a 25kg polythene lined, paper bags.

HANDLING

Full MSDS available on request. H315 Causes skin irritation. H318 Causes serious eye damage. Avoid contact with skin and eyes. Wash thoroughly after handling. Wear protective gloves, eye protection, face protection when handling.



TECHNICAL DATA

Composition	Synthetic blend of surface-active additives
Appearance	White - off-white powder
pH (1% aqueous solution)	9.0 - 12.0
Bulk Density (g/l)	500 - 700
Water Solubility	Completely soluble

Cemkem is part of the Rakem Group, the Group specialises in the distribution of raw materials to the coatings, construction and chemical industry.



Chemical distributor to
the coatings, plastics and
inks sector



Confidential toll
manufacturer of water-
based products



Specialist distributor to
the cement and
horticulture sector

With over 20 years experience within the construction industry, Cemkem's product portfolio has been formulated to enhance and improve construction products, with the aim to benefit the manufacture, the customer and most importantly the end-user. The Group aims for consistent and constant development across all raw materials and finished products.