Aermax 23

TOP-QUALITY TECHNOLOGICAL AERATING LIQUID, GUARANTEED FOR THE ADDITIVATION OF CEMENT MORTARS, GROUTS AND CONCRETE. USED TO INTRODUCE A CALCULATED AMOUNT OF AIR MICROBUBBLES IN ORDER TO IMPROVE ARTEFACTS WORKABILITY AND DURABILITY.

TECHNICAL DATA SHEET – REV. 01/2022

DESCRIPTION

AERMAX 23 is a plasticising aerating additive, used to pack mortar and occluded air concrete, with excellent resistance to freezing and thawing cycles. AERMAX 23 allows an enormous amount of microbubbles (diameter 0.1-0.2 mm) to be incorporated in the mixture, distributed in a controlled and uniform way throughout the cement paste. This system of microbubbles (5-6% in volume of the mixture) significantly improves the resistance to freezing and thawing cycles of mortar and concrete. As a matter of fact, when water freezes in a normal mixture, this increases in volume and creates internal tensions that cause the mass to break. The microbubbles act like storage tanks in occluded air concrete, as they absorb the excess pressurised water and eliminate tensile stresses, preventing the concrete from breaking. AERMAX 23 also improves smoothness, cohesion and workability, and reduces hygrometric shrinkage, segregation and bleeding (water outcrop); it is soluble in water, and is completely chloride-free, therefore harmless to metal reinforcement and equipment.

Compliant with UNI EN 934-2 table 5.

FIELDS OF APPLICATION

AERMAX 23 can be used to pack all types of concrete (normal, prepacked, prefabricated, pre-compressed, etc.) and in mortar, where excellent resistance to freezing and thawing cycles is required as well as to the chemical attack of de-icing agents, sea water substances, sulphates, etc. In particular, it can be used in concrete to construct structures that are exposed to extreme climatic conditions, for road works, dams, hydraulic works and buildings in general at high altitudes or to pack "lean" concrete or concrete with no fine parts. It is used in plaster mortar, where it replaces the slaked lime.

APPLICATION

AERMAX 23 is a ready-to-use product, to be added to the mixer together with the mixing water which it will be mixed with just before use. Many factors can affect the amount of air introduced, such as the ambient temperature, the materials, the type of cement and aggregates, the W/C ratio and the vibration time. The recommended dosage range is between 0.02% and 0.20% of the weight of the cement. Depending on the type of mix and the aggregates used, certain conditions may require the dosage to be increased up to 0.5%. Preliminary qualification tests must be carried out in all cases, so as to verify the actual level of incorporation of air in the concrete. Mixtures with a slump of about 15 cm are recommended. Avoid prolonged vibrations as they can significantly reduce the air content.
Using AERMAX 23 does not vary the setting start and end time of the concrete or mortar significantly. AERMAX 23 is compatible with all types of Portland, Pozzolanic and Blast Furnace cement. It is also compatible with all COLMEF additives in the concrete, including water-repellent and expansive agents. Every additive must be added separately during the mixing phase.

YIELD

For concrete that is resistant to freezing and thawing cycles, ranging from 60 to 150 grams per 100 kg of cement. For plaster and masonry mortars ranging from 150 to 200 grams per 100 kg of cement.

RECOMMENDATIONS

- PROTECT FROM FROST.
- Store at a temperature above +5°C.
- Equipment that comes into contact with AERMAX 23 can be cleaned with water.

PACKAGING

AERMAX 23 is supplied in 5 kg and 25 kg plastic jerry cans. Store the product in sealed containers, away from frost and direct sunlight. In these conditions, its stability is of at least 9 months.

SAFETY INSTRUCTIONS

Refer to the respective Safety Data Sheet for more information about how to use the product safely.

SPECIFICATIONS

High quality technological aerating liquid, for the additivation of cementitious mortar, grout and concrete, such as **AERMAX 23** by Colmef Srl, suitable for introducing a calculated amount of air microbubbles so as to improve the workability and durability of the artefacts.

TECHNICAL DATA

Appearance:	liquid
Colour:	brown
Flammability:	no
Density (kg/dm^3):	1.00
Total chloride ion content (%):	≤ 0.10
Sodium oxide equivalents (%):	≤ 3.00

DATA DETECTION AT +23°C - 50% R.H. AND IN ABSENCE OF VENTILATION

COLMEF SRL | Z.I. Ponte d'Assi | 06024 – Gubbio (PG) ITALY | Tel. +39 075923561 | info@colmef.com | www.colmef.com