

Aermax 23

HIGH-QUALITY TECHNOLOGICAL LIQUID AIR-ENTRAINING ADMIXTURE, GUARANTEED FOR THE ADDITION TO CEMENT MORTARS, SCREEDS AND CONCRETE. IT IS USED TO INTRODUCE A CALCULATED QUANTITY OF AIR MICROBUBBLES IN ORDER TO IMPROVE THE WORKABILITY AND DURABILITY OF THE FINISHED ELEMENTS.



TECHNICAL DATA SHEET - REVISION 01/2022

DESCRIPTION

AERMAX 23 is a plasticizing air-entraining admixture used to produce air-entrained mortars and concrete with excellent resistance to freeze-thaw cycles. AERMAX 23 makes it possible to incorporate into the mix a very large quantity of microbubbles (diameter 0,1-0,2 mm), distributed in a controlled and uniform manner throughout the cement paste. This system of microbubbles (5-6% by volume of the mix) significantly improves the resistance of mortars and concrete to freeze-thaw cycles. In fact, when the water in a normal mix freezes, it increases in volume and creates internal stresses that cause the mass to break. In air-entrained concrete, the microbubbles act as storage reservoirs, absorbing excess pressurized water and eliminating tensile stresses, thereby preventing the concrete from breaking. AERMAX 23 also improves flowability, cohesion and workability; reduces drying shrinkage, segregation and bleeding (water rising to the surface); it is soluble in water and completely chloride-free, and is therefore harmless to reinforcement and metal equipment.

Complies with UNI EN 934-2, Table 5.

FIELDS OF APPLICATION

AERMAX 23 can be used in the production of all types of concrete (normal, ready-mixed, precast, prestressed, etc.) and in mortars where excellent resistance is required both to freeze-thaw cycles and to chemical attack by de-icing substances, seawater, sulfates, etc. In particular, it can be used in concrete for the construction of structures exposed to extreme climatic conditions, for road works, dams, hydraulic works and construction in general at high altitude, or for the production of 'lean' concrete or concrete lacking fine constituents. It is used in plastering mortars where it replaces lime putty.

APPLICATION

AERMAX 23 is a ready-to-use product to be added to the concrete mixer together with the mixing water, with which it is mixed shortly before use. Many factors can affect the amount of air introduced into the mix, such as ambient temperature, the materials, the type of cement and aggregates, the W/C ratio and vibration time. The recommended dosage range is between 0,02% and 0,20% by weight of cement. Depending on the mixing method and the aggregates used, under certain conditions it may be necessary to increase the dosage up to 0,5%. In all cases, preliminary qualification tests must be carried out in order to verify the actual level of air entrainment in the concrete. Mixes with a slump of approximately 15 cm are recommended. Avoid prolonged vibration because it can cause significant reductions in air content.

The use of AERMAX 23 does not substantially alter the initial or final setting time of concrete or mortar.

AERMAX 23 is compatible with all types of Portland, pozzolanic and blast-furnace cement. It is also compatible in concrete with all COLMEF admixtures, including water-repellent and expansive admixtures. Each admixture must be added separately during mixing.

DOSAGE

For concrete resistant to freeze-thaw cycles: 60 to 150 grams per 100 kg of cement. For plastering and masonry mortars: 150 to 200 grams per 100 kg of cement.

RECOMMENDATIONS

- ◆ PROTECT FROM FREEZING.
- ◆ Store at temperatures above +5 °C.
- ◆ Equipment that has come into contact with AERMAX 23 can be cleaned with water.

PACKAGING

AERMAX 23 is supplied in 5 kg plastic containers on 450 kg pallets and in 25 kg plastic containers on 825 kg pallets. Store the product in sealed containers, protected from freezing and direct sunlight. Under these conditions, its stability is at least 9 months.

SAFETY INSTRUCTIONS

For further information on the safe use of the product, refer to the relevant Safety Data Sheet.

SPECIFICATION CLAUSE

High-quality technological liquid air-entraining admixture, such as AERMAX 23 by Colmef Srl, for use in cement mortars, screeds and concrete, suitable for introducing a calculated quantity of air microbubbles in order to improve the workability and durability of the finished elements.

TECHNICAL DATA

Appearance:	liquid
Color:	brown
Flammability:	no
Density (kg/dm ³):	1,00
Total chloride ion content (%):	≤ 0,10
Sodium oxide equivalent (%):	≤ 3,00

DATA RECORDED AT +23 °C - R.H. 50% AND NO VENTILATION

The information and recommendations given above are based on our best experience. However, we cannot accept any responsibility for improper use of the products. We therefore recommend that anyone intending to use them assess whether or not they are suitable for the intended application and in any case carry out preliminary tests. Always refer to the latest updated version of the technical data sheet, available at www.colmef.com.

FOR FURTHER INFORMATION OR SPECIAL APPLICATIONS, CONTACT COLMEF TECHNICAL SUPPORT.

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