

# MasterAir MA 1

## High Performance Plasticizer/Air Entraining Mortar Admixture Used in Ready Mixed Fresh Plaster and Mortar Production EN 934-3: T2

### DESCRIPTION

MasterAir MA 1 is a high performance plasticizer/ air entraining mortar admixture that can be used combined with MasterAir MA 2 in summer and winter seasons in ready mixed fresh plaster production.

### FIELDS OF APPLICATION

- In the production of fresh, coarse and fine plaster.
- In mortars used in the manufacturing of bricks and ytongs.
- In plaster mortars where long-time workability is desired. (can be workable for 24, 48, 72 hours)
- In plaster mortars where impermeability is desired to be improved.

### FEATURES and BENEFITS

- Improves plaster's neatness and workability by entraining controlled air bubbles into the plaster.
- Improves strength to Freeze-Thaw cycle.
- Reduces segregation and efflorescence effects seen in plain plasters.
- It is economical.
- Increases mechanic strengths of mortar by the reduction in mixing water.
- In combined applications with MasterAir MA 1, retards initial set and final set

### DOSAGE

MasterAir MA 1 is suggested to be used as 0.1-0.6 kg for 100 kg binder (cement-micro silica-flyash). The dosage to be used must be determined beforehand by laboratory experiments according to concrete class and properties. Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd.Şti.Technical Service must be consulted for detailed information.

### APPLICATION PROCEDURE

Binder (cement-micro silica-fly ash) and aggregate must be mixed until a homogenous mixture is obtained. After adding 50%-70% of the water to be added to the mixture, MasterAir MA 1 must be added to the mixture along with the remaining water. In combined applications, MasterAir MA 2 must also be added. MasterAir MA 1 must be mixed for 60 sec. or for the duration determined in laboratory experiments in the mixture for a homogenous diffusion.

- Plaster design and admixture dosage must be determined by prior laboratory trials according to concrete class and properties.
- The determined binder (cement-micro silica- fly ash), at the end of laboratory trials, coarse and fine aggregate must be mixed until a homogenous and dry mixture is obtained. If admixture is added to the dry mixture before adding mixing water, then it will be absorbed by the fine aggregate and uniform distribution will not be obtained. Even if all the mixing water is added on top of this, aimed concrete class and properties cannot be obtained. Since the mixture will need extra water, the water amount in design values will be exceeded and the concrete's mechanical properties will be below the aimed value. For this reason, concrete admixtures must not be added directly to the dry mixture.
- The admixture amount in the mixture is calculated by multiplying the sum of cement and secondary binders (such as micro silica-fly ash- slag) in the mixture by admixture dosage ratio.
- If higher doses are used than the suggested dosage, then mechanical strengths decrease due to the increase of micro air amount in the mixture.

### COMPATIBILITY

MasterAir MA 1 can be used with all types of **EN 197** Cements. For use with other special cements, contact our Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd.Şti.Technical Services Department. MasterAir MA 1 should not be pre-mixed with other admixtures. If other admixtures are to be used in concrete containing MasterAir MA 1 they must be dispensed separately.

MasterAir MA 1 admixture is compatible with concrete containing other admixtures or admixture systems - water-reducers, high-range water- reducers, accelerators, retarders, densifiers and water repellents. It also increases the entrained air content of concrete made with air-entraining Portland cement.

When such complimentary admixtures are required it is important that laboratory trials are performed, prior to any supply, to determine the respective dosages of any complimentary admixture, and the suitability, in the fresh and hardened state, of the resultant concrete. In these circumstances we recommend that you consult our Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd.Şti..Technical

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Services Department for further advice. The use of MasterAir MA 1 air-entraining admixture with MasterPozzolith admixtures forms a desirable combination for producing the highest quality, normal or lightweight concrete. Heavyweight concrete normally does not contain entrained air.

### PACKAGING

MasterAir MA 1 is supplied in 1000 kg- IBC's, 30-kg cans

| Product Data                   |  |
|--------------------------------|--|
| Appearance                     | Light brown liquid   |
| Specific gravity @ 20°C        | 1 – 1.1 kg/lt  |
| pH-value                       | 5-6  |
| Chloride content (%)           | ≤ 0.10 (by mass)   |
| Application Ground Temperature | +5C +35C   |
| Service Temperature            | -20 C +80C   |
| Logistics                      |  |
| Shelf life                     | 12 months if stored according to manufacturer's instructions in unopened container.  |
| Storage conditions             | Store in original sealed containers and at temperatures between 5°C and 30°C. Store under cover, out of direct sunlight and protect from extremes of temperature. Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. |
| Handling and transportation    | Refer to MasterAir MA 1 Safety Data Sheet.   |
| Disposal                       | Refer to MasterAir MA 1 Safety Data Sheet.   |

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### HEALTH AND SAFETY

\*For full information on Health and Safety matters regarding this product the relevant Health and Safety Data Sheet should be consulted. The following general comments apply to all products.

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs, (which may also be tainted with vapor until the product is fully cured and dried). Treat splashes to eyes and skin immediately. If accidentally ingested, seek medical attention. Keep away from children and animals. Reseal containers after use.

### SPILLAGE

Chemical products can cause damage; clean spillage immediately.

### DISCLAIMER

"Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd. Şti." (the Company) endeavors to ensure that advice and information given in Product Data Sheets, Method Statements and Material Safety Data Sheets (all known as Product Literature) is accurate and correct. However, the Company has no control over the selection of its products for particular applications. It is important that any prospective customer, user or specifier, satisfies him/her-self that the product is suitable for the specific application. In this process, due regard should be taken of the nature and composition of the background/base and the ambient conditions both at the time of laying/applying/installing the material and when the completed work is to be brought into use. Accordingly, no liability will be accepted by the Company for the selection, by others, of a product, which is inappropriate to a particular application. Products are sold subject to the Company's standard conditions of sale and all customers, users and specifiers, should ensure that they examine the Company's latest product literature.

### CONTACT INFORMATION

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**MasterAir MA 1** Technical Data Sheet -Revision  
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