

MasterCast® 301 (Rheomix® 301)

High Performance Air Entraining Admixtures, Plasticizing Admixtures for Plaster Mortars

Material Description

MasterCast® 301 is a high performance micro air entraining mortar admixture designed to improve impermeability, workability, and Freeze-Thaw resistance in plaster mortars.

Complies with EN 934-3 T2

Areas of Application

- In inner-outer spaces for vertical applications.
- In plaster mortars to improve impermeability.
- In brick and stone coating mortars for improving workability.

Characteristics and Benefits

- Has homogenous air entraining property.
- Reduces segregation and efflorescence effects which can be seen on mortars without admixture.
- Improves neatness and workability properties in mortars.
- Improves strength to Freeze-Thaw cycle.
- It is economical.

Processing Method

(A) Surface Preparation

Cement based surfaces have to bearing, dustless, and clean. Surface must be cleaned off all kinds of oil, grease, rust, and paraffin traces that can weaken adherence. The sides of the surface, which are formed by breaking, must be cut as straight as

possible, rust on the reinforcement must be cleaned, and new reinforcement must be added if necessary. If there is water leak on the surface, it has to be drained or sealed by a suitable stopper. Surface must be wetted, and MasterCast® 301 admixture mortar has to be applied on wet/dry surface.

(B) Mixing

To obtain MasterCast® 301's air entraining properties effectively, it must be mixed by shovel or trowel until a homogenous and unumpy mixture is obtained.

In Plaster Mortars

1 m³ washed river sand in suitable gradation is mixed with 350 kg cement. Liquid mixture, prepared by adding 10-17 kg MasterCast® 301 into 120 kg water, is added onto powder mixture until trowel consistency mortar is obtained. Surface must be wetted and MasterCast® 301 admixture mortar has to be applied on wet/dry surface.

Point to Consider

- Concrete design and admixture dosage must be determined by prior laboratory trials according to concrete class and properties.
- The determined ratio of cement and sand at the end of laboratory trials 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

Technical Properties	
Apperance	Yellow
Specific Gravity (20°C)	1.0 – 1.1 kg/lt
pH Value	10 - 12
Application Ground Temperature	+5°C + 35°C
Service Temperature	-20°C + 80°C

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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 silicaflyash- 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.

Cleaning of Tools

All the equipment must be cleaned by water immediately after the application.

Dosage

The normally recommended dosage rate of MasterCast[®] 301 is approximately:

By Weight – 3 to 5 kg per 100 kg of cement (binder) content.

The dosage rates given above are for typical usages, they are not meant as absolute limits, as other dosages may be utilized in special cases according to specific job conditions. If required consult MBT Teknik Yapı Kimyasalları Sanayi ve Ticaret A.Ş. for advice. Trial mixes should be carried out to ensure optimum dosage and effect.

Packaging

MasterCast[®] 301 is supplied in 30 kg canes.

Shelf Life

12 months if stored according to manufacturer's instructions in unopened container.

Storage

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.

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

The technical information given in this publication is based on the present state of our best scientific and practical knowledge. **MBT Teknik Yapı Kimyasalları Sanayi ve Ticaret A.Ş.** is only responsible for the quality of the product **MBT Teknik Yapı Kimyasalları Sanayi ve Ticaret A.Ş.** is not responsible for results that may occur because the product is used other than advised and/or out of instructions regarding the place and the method of use. This technical form is valid only till a new version is implemented and nullifies the old ones.

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