

MasterLife[®] WP 701 (Rheomac[®] WP 701)

Water Resisting Plasticizer Admixture for Concrete

Material Description

MasterLife[®] WP 701 is a concrete admixture that improves concrete's impermeability against capillary water absorption and reduces concrete's mixing water with limited air entrainment.

Areas of Application

- Concrete subjected to water pressure
- Below ground construction
- Retaining walls
- Water retaining structures
- Concrete walls and slabs
- Precast wet or dry concrete

Characteristics and Benefits

MasterLife[®] WP 701 offers the following benefits:

- Improves impermeability against capillary water absorption compared to concrete without admixture.
- Improves permanency by reducing water / cement ratio without decreasing workability.
- Reduces segregation and bleeding.
- Enables easy setting and pumpability of concrete.
- Makes it easier to obtain surface finish.
- **MasterLife[®] WP 701** does not contain chloride.

The Mechanism

MasterLife[®] SRA 865 decreases the permeability of the mixture by forming a layer of film in the mixture within the first few hours of the cement hydration after the specified amount of the admixture is added to the mixture. Thus, it provides required degree of water for full hydration by reducing the water loss.

Processing Method

MasterLife[®] WP 701 is a ready-to-use admixture to be added to the concrete as a separate component. Optimal performance is obtained if **MasterLife[®] WP 701** is dispensed into the concrete mix right after the addition of the first 80% of the mixing water, i.e. when all solids are wetted out. Avoid adding the admixture to the dry aggregates.

- In impermeable concrete production, amount of binder is also an important parameter. If **MasterLife[®] WP 701** is used in concretes with low binder, performance will be low. It is suggested to use with 350 kg/m³ binder.
- To produce impermeable concrete, concrete with low water/cement ratio (0.4-0.6) has to be used, and concrete has to have workable consistency. Concrete must be protected from shrinkage and cracks by suitable curing and maintenance.

Technical Properties

Appearance	Brown
Specific gravity (20°C)	1.05 - 1.09 kg/lt
Alkali Content (%)	≤ 10.0 (by mass)
Chloride Content (%)	≤ 0.10 (by mass)
Corrosion Behaviour	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous Substances	Comply with annex AZ.

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Dosage

The normally recommended dosage rate of **MasterLife[®] WP 701** is approximately:

By Weight - 0.5 to 0.8 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. Technical Services Department for advice. Trial mixes should be carried out to ensure optimum dosage and effect. Where the concrete is to be machine finished by utilizing power float or power trowelling methods, we recommend that you contact with MBT Teknik Yapı Kimyasalları Sanayi ve Ticaret A.Ş. Technical Services Department for dosage rate guidance.

Compatibility

In order to optimize special requirements, the use of the following complementary admixtures is strongly recommended:

- Superplasticizer from the MasterGlenium[®] or MasterRheobuild[®] and MasterPozzolith[®] ranges

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 **MBT Tech** Technical Services Department for further advice.

Cleaning of Tools

Clean all equipment with water immediately after use.

Packaging

MasterLife[®] WP 701 is available in bulk, 1000 kg-IBCs and 30 kg cans.

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.

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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.

Contact

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