

MasterLife® WP 1200

Crystalline Waterproofing Admixture for Concrete & Mortars

Material Description

MasterLife® WP 1200 crystalline waterproofing liquid admixture is an integral crystalline capillary waterproofing admixture for concrete. It is designed for use in above- and below-grade applications.

MasterLife® WP 1200 consists of various active, proprietary chemicals which react with the moisture in fresh concrete with the by-products of cement hydration to cause a reaction, which generates an insoluble crystalline deposit throughout the pores and capillary tracts of the concrete. Thus the concrete with **MasterLife® WP 1200** reduces water permeability. This product also has a self-healing property under presence of moisture and can heal cracks below 0.4 mm.

Areas of Application

MasterLife® WP 1200 should be used in all structural concrete that is constantly or intermittently in contact with water such as sea walls, tunnels, basements, structural and precast concrete. **MasterLife® WP 1200** can also be used as crystalline waterproofing admixture for cement mortars and plasters. To waterproof structures such as:

- Building Basement and foundations
- Sewage and water treatment plants
- Dams, canals, Tunnels, Harbours
- Tunnel and subway systems
- Water reservoirs
- Concrete pipes
- Parking structures
- Pre-Cast, Cast-in-Place and Shotcrete applications
- Swimming pools

- Retaining walls & sea defense walls

Characteristics and Benefits

MasterLife® WP 1200 offers the following benefits:

- Added during concrete mixing
- Reduces concrete permeability
- Non-toxic
- Integrates into the internal structure of the concrete
- Reduces the passage of water and other liquids
- Capable of sealing capillary cracks up to 0.4 mm
- Resistant to both positive and negative hydrostatic pressure
- Provides protection against sewage and industrial waste

Processing Method

MasterLife® WP 1200 additive is dosed in concrete production plants in the same way as cement or other cement-equivalent materials. It can be added to a central mixer or a transit mixer. After adding **MasterLife® WP 1200** to the transit mixer, ensure that it is thoroughly mixed at high speed for 5 minutes. For each kilogram of **MasterLife® WP 1200** mixture, the mixing water content should be reduced by 0.8 kg to maintain the designed water/cement ratio.

Dosage

As a guide, a dosage of 1 - 2.5% of cementitious content is recommended. Typical dosage is 2% of cementitious content. For addition to ready mix

Technical Properties

Appearance	Transparent
Specific gravity (20°C)	1.05 - 1.09 kg/lit
Chloride Content (%)	< 0.1
Corrosion Behaviour	Non-corrosive
Dangerous Substances	Comply with annex AZ.

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concrete, a typical dosage of 6 - 7 kg per cubic meter of concrete is best recommended.

For addition information on **MasterLife[®] WP 1200** or on its use in developing concrete mixes with special performance characteristics, contact your local MBT Teknik Yapı Kimyasalları representative.

Points to remember when producing waterproof concrete:

- Ensure water / cement ratio is less than 0.5
- Addition of good superplasticiser from the **MasterRheobuild[®]** or **MasterGlenium[®]** range is advised to achieve minimum water/cement ratio.
- Place concrete quickly and compact it well.
- Ensure complete curing with a MasterKure[®] curing compound.

Performance Character

Setting Time:

MasterLife[®] WP 1200 admixture has little to no effect on concrete setting time within the recommended dosage range. However, it is recommended to test this in case any additives or blended cementitious combinations are used in concrete.

Permeability:

MasterLife[®] WP 1200 capillary waterproofing admixture is a crystalline liquid material that reacts in concrete to form insoluble crystalline hydration products in the capillary pores/capillary tracts of the concrete. These crystalline hydration products are deposited and fill the pores and hairline cracks, effectively reduce the permeability of concrete, its capillary absorption and penetration of water and other liquids into the concrete.

Compatibility

MasterLife[®] WP 1200 admixture can be used with portland cements approved under ASTM and EN specifications. It is compatible with most concrete admixtures, including all Master Builders Solutions admixtures. **MasterLife[®] WP 1200** admixture is recommended for use with high-range waterreducing admixtures, such as the **MasterGlenium[®]** series, for

maximum workability while maintaining a low water-to-cementitious materials ratio

Packaging

MasterLife[®] WP 1200 is available in bulk, 1000 kg-IBCs, 210 kg barrels and 30 kg cans.

Shelf Life

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

Storage

MasterLife[®] WP 1200 additive should be stored in a dry environment and indoors. The presence of moisture and/or high humidity can cause premature deterioration of soluble packets and may cause premature deterioration of the product or packaging. When removing single-dose packets from the outer carton, care should be taken to prevent moisture from entering the packet.

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

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Contact

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