

MasterLife[®] CH 500

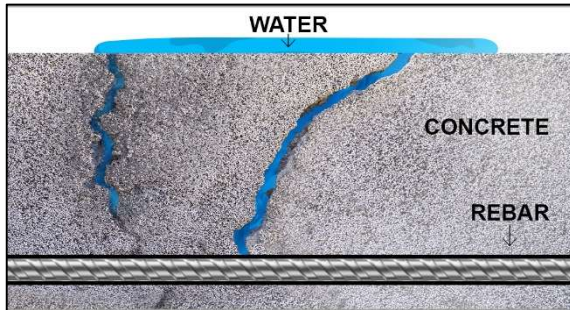
Crack Healing Additive for Concrete

DESCRIPTION

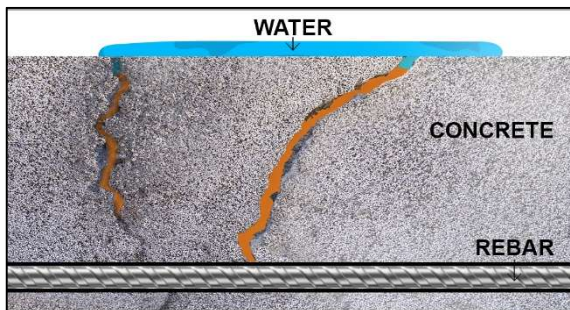
MasterLife CH 500 is a powder-based additive containing a blend of crack healing polymers, which when added to fresh concrete mix, imparts the property of auto-healing and permanent sealing of micro cracks in treated structures. **MasterLife CH 500** is compatible for use with all types of cementitious material and other chemical admixtures used to produce concrete.

Mechanism of Action

Micro cracks occurring in concrete, allow the ingress and passage of water, chlorides and other harmful substances, that lead to corrosion of reinforcement and damage to the structure.



When treated with **MasterLife CH 500**, the crack healing polymers lie dormant within the pores and capillaries of concrete and are activated on contact with ingressed water. What follows is a chemical reaction resulting in the formation of non-soluble gel that plug and seal the crack in concrete over time.



FIELDS OF APPLICATION

MasterLife CH 500 can be used to treat and impart crack healing properties to all types of concrete used in residential, commercial and industrial construction. It is highly recommended for use in the following areas:

- Slabs
- Beams and Columns
- Flat and Sloped Roofs
- Raft and Isolated Footings
- Cement Mortar for Plastering

FEATURES AND BENEFITS

- Low dosage powder-based additive
- Prepackaged scoop allows easy and accurate addition into concrete
- Economical solution for concrete durability
- Propriety blend of polymers impart crack healing properties to concrete
- No detrimental impact on compressive strength of concrete
- Automatic healing and sealing of micro cracks over time
- Reduction in seepages and leakages in concrete
- Increased resistance to corrosion
- Enhanced life of structure

PERFORMANCE TEST DATA

Aspect	: Free Flowing Grey Powder
Relative Density	: 1.35 ± 0.02 gm/cm ³
Chloride ion content	: < 0.1% by mass
Impact on compressive strength	: No detrimental effect on compressive strength
Impact on setting time	: No detrimental effect on setting time
Reduction in permeability (IS: 2645 2003)	: >50% reduction as compared to untreated specimen

DOSAGE

Each bag of **MasterLife CH 500** contains a measuring scoop of 500 grams capacity, which

MasterLife[®] CH 500

shall be used to charge the material into fresh concrete. **The recommended dosage is 1 scoop of material per bag of cement consumed.**

APPLICATION

Adopt the following procedure to treat your concrete with **MasterLife CH 500**

1. Open a bag of **MasterLife CH 500** and extract the **measuring scoop**
2. Add one **heaping scoopful of MasterLife CH 500** per bag of cement consumed and dry mix with cementitious binder, sand and coarse aggregates
3. Add the required water into the mixer as per the water cement ratio and mix judiciously
4. Optionally, add MasterPel 777 in the recommended dosage to achieve required workability and mix thoroughly
5. Place, compact and cure the concrete as per standard practice

COMPATABILITY

MasterLife CH 500 is compatible with most admixtures used in the production of quality concrete including normal, other mid-range and high-range water-reducing admixtures, air entrainers, accelerators, retarders and extended set-control admixtures.

MasterLife CH 500 is compatible with all types of cement and other supplementary cementitious binders like fly ash, GGBFS and micro-silica.

LIMITATIONS OF USE

Excessive dosage of **MasterLife CH 500** may result in reduction of workability of fresh concrete. Care should be taken to dosage adequate quantity of material.

MasterLife CH 500 is effective for healing and sealing of cracks occurring due to plastic or drying shrinkage and does not help in sealing of large structural cracks, i.e., cracks above 0.5mm width that occur due to concrete settlement, displacement of reinforcement, overloading or misuse of structure. **MasterLife CH 500** is not

effective in segregated concrete or concrete containing honeycombs

PACKAGING

MasterLife CH 500 is available in 15kg bag with measuring scoop

STORAGE /SHELF LIFE

MasterLife CH 500 must be stored in a cool & dry area at temperatures between 5°C and 45°C. Material should not come in contact to splashing or stagnated water. Store under cover, out of direct sunlight and protect from extremes of temperature. Shelf life is 6 months when stored as above.

Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advice consult your local Master Builders Solutions representative.

PRECAUTIONS

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs (which can also be tainted with vapour until product fully cured or dried). Treat splashes to eyes and skin immediately. If accidentally ingested, seek immediate medical attention. Keep away from children and animals. Reseal containers after use. Do not reuse containers for storage of consumable item. For further information refer to the material safety data sheet.

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RESPONSIBILITY
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