CAC®-LIW

Liquid Integral Waterproofing compound

CAC®-LIW is an integral liquid waterproofing admixture for concrete and cement mortar. It has good plasticising properties which makes concrete cohesive and prevents segregation. The liquid is to be added to the wet concrete or mortar. It fills up the capillaries in the concrete giving effective waterproofing.

AREA OF APPLICATION:

It is used for waterproofing of concrete and cement-sand mortar used in basements, roof slabs and screeds, water retaining structures, bathrooms, balconies, water tanks, external plastering, sumps and drains, etc.

FEATURES & BENEFITS:

- Increase durability, by increase in impermeability.
- Reduces shrinkage cracks in plaster & concrete.
- Concrete containing **CAC®-LIW** is resistant to water penetration either under conditions of hydrostatic pressure or capillary absorption.
- Sulphate attack is reduced due to the sulphate bearing ground water being resisted.
- Makes the mortar / concrete more cohesive.
- Economical in application.
- Pumpability and surface finish of the concrete is greatly improved.

STANDARDS:

ASTM C 494 – Type A and D
IS:2645-2003
IS:9103-1999

METHOD OF APPLICATION:

Add 80-90% water to the concrete based on Mix Design by weight. The correct quantity of **CAC®-LIW** should be measured with recommended dispenser and should be added to the concrete with remaining mixing water. Allow to mix it for recommended mixing time. The addition of **CAC®-LIW** to dry mixes or cement is not recommended

To get better performance in workability retention, use along with **CAC-Superflow** series products. If more than one admixture is to be used in concrete, they must be dispensed separately.

DOSAGE:

As a starting point, a dose of 300ml per 100kg of cement is recommended. Optimum dosage of **CAC®-LIW** should be determined in trial mixes. Please consult CAC Pvt. Ltd. Technical staff for further information.

EFFECTS OF OVER-DOSAGE:

A severe over-dosage of **CAC®-LIW** will result in the following:

- Slight set retardation.
- Increase in workability
- Slight increase in air content

Providing concrete is properly cured, the ultimate concrete strength will not be adversely affected.

TECHNICAL PROPERTIES:

Appearance	Brown free flowing liquid
Specific Gravity @30^{0}C	1.165 $\pm$ 0.020
Chloride content	Maximum 0.2%
pH	Minimum 6

CAC®-LIW is a chloride free product. The shelf life of the product is 1 year when stored as recommended.

IMPORTANT POINTS TO REMEMBER:

- Ensure w/c ratio should not exceed 0.5.
- Keep lowest possible water content in concrete compatible with achieving full compaction.
- Place concrete quickly & ensure it thoroughly compacted.
- Protect new concrete against rapid drying out and ensure adequate and complete curing by using CAC's curing compounds.

MECHANISM:

CAC®-LIW significantly reduces water demand to enable production of good workability concrete with a minimum water/cement ratio.

CAC®-LIW disrupts the cellular network within the concrete mass (capillaries), that are normally interconnected thereby reducing the concrete permeability.

COMPATIBILITY:

CAC®-LIW is compatible with all types of Portland cements including sulphate resisting cement.

STORAGE:

CAC®-LIW must be stored at above 5^{0}C temperature. If the product has frozen, thaw at room temperature and agitate to completely reconstitute it in original form. Store under cover, protect it from direct sunlight. Failure to comply with recommended storage condition may result in premature deterioration of the product or packaging.

PACKAGING:

CAC®-LIW is available in 25 kg & 260 kg HDPE drum or in bulk.

SAFETY PRECAUTIONS:

CAC®-LIW is a non-toxic and inflammable. When in contact with the skin, it should be washed with cold water.

Permeability to water : Max 50% allowable under IS:2645 compared to control sample.