



# SIDDHI VINAYAK CONSTRUCTION CHEMICAL PVT. LTD.

## Concrete Guard Lw300<sup>TM</sup>

### Waterproofing Concrete Admixture

सिद्धिविनायक का वादा..  
मजबूती सबसे ज्यादा...



ISO 9001  
2015  
CERTIFIED

## About

Concrete guard LW300 Waterproofing concrete admixture is a type of admixture which prevents the passage of water through hardened concrete under a pressure head. It is also called as water resisting admixture or permeability reducing admixture or damp proofing admixture.

## Description

Concrete guard LW300 is an integral liquid waterproofing compound composed of surface-active plasticizing agents, polymers & additives. It is used as an additive for cement concrete, mortar & plasters. It makes concrete cohesive and prevents segregation.

## Why Required

Water is a vital part of concrete construction from the mixing of concrete to the curing of concrete. But once the concrete has gained its required strength, thereafter any moisture or water penetration in concrete can cause damage to the concrete. The damage can be due to corrosion of reinforcement or due to freeze thaw.

When a concrete work has finished and curing completed, the water content evaporates and leaves voids inside the concrete. Thus, for a good durable concrete construction, low water/cement ratio is recommended so that porosity of concrete can be reduced. But then also, a concrete cannot be completely made waterproof even by using the minimum water/cement ratio.

Concrete is a porous material and water can penetrate through pores and micro-cracks of concrete due to capillary actions. Thus, there is a need of a concrete guard lw300 admixture which can control the porosity of concrete.

### Note

- Capillary absorption is the passage of water through pores in concrete due to presence of an externally applied hydraulic head. These water resisting admixtures cannot significantly prevent the movement of water through cracks in concrete or through poorly compacted concrete which are the most common reasons for water leakage in concrete.
- There are many products in the market now a day which are available to protect the concrete structure from damage due to water penetration. For example, coatings, sealers, membranes etc. are used to prevent water penetration. But all these require huge amount of money and time. This process can be simplified by the use of water resisting admixture which prevent the ingress of water through concrete by making it waterproof.

### Mechanism of Water Resisting concrete guard LW300 concrete Admixture:

The mechanism of water resisting concrete guard lw300 concrete admixtures is to reduce the porosity of concrete. To reduce the porosity of concrete, the water content or the water cement ratio must be reduced. If water cement ratio is decreased below 0.45, the porosity of concrete reduced considerably.





If we further reduce the water/cement ratio, the workability of concrete decreases. This can be prevented by the use of concrete guard lw300 waterproofing concrete admixture that ensure sufficient workability of concrete for full compaction and reduce shrinkage cracking.

#### **Functions of concrete guard LW300 Waterproofing concrete Admixtures:-**

- It reduces the size of capillary pores, their numbers and continuity inside the concrete structure.
- It blocks the capillary pores of concrete.
- It may line the capillary pores with hydrophobic materials. This prevents the absorption of water in the pores due to capillary absorption.

## *Advantages*

- Makes concrete more cohesive, hence protects steel better against corrosion.
- Being a liquid, easily dispersible & compatible with concrete/mortar mixes.
- It reduces the permeability of water into concrete.
- The setting time and compressive strength of the concrete remains within the specification limits.
- Reduces shrinkage crack development in plaster & concrete.
- Improves workability of freshly mixed cement concrete.
- Increases durability by improving waterproofing of concrete.
- Self-curing resulting in elimination of water curing.

## *Dosage and Usage*

The normal recommended dosage is between 0.3% to 0.6% by weight of cementitious material. The optimum dosage of concrete guard LW300 waterproofing concrete admixture to meet specific requirement should always be determined by trials using the materials and conditions that will be experienced in use. Stir well before use.

### **PACKAGING**

#### **Packing Size :-**

1/2 Kg, 1 Kg, 2.5 Kgs  
5 Kgs, 25 Kgs Cane.



#### **Packing Material :-**

HDPE Cane



1/2 Kg



1 Kg



2.5 Kgs



5 Kgs



25 Kgs



Manufactured & Marketed by :

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