



ARMSTRONG CHEMICALS PVT. LTD.,  
Bengaluru  
An ISO 9001 : 2015 Certified Company



**ROOFGUARD 500**

**High Plasticizing Micronised Integral Liquid  
Waterproofing for Plastering & Concrete**

**(Complies to IS 2645-2003)**

### **DESCRIPTION OF PRODUCT**

ROOFGUARD 500 ranks on top as the most efficient, more dependable waterproofing compound. The use of ROOFGUARD 500 would give very consistent, incomparable waterproofing performance. ROOFGUARD 500 Complies to IS 2645-2003 with assurance of consistent high quality product manufactured under strict quality control & testing procedure. It can be used with any type of ordinary Portland cement, super sulphate and slab cement. Chloride content NIL.

### **The Need For Water Repellents (Hydrophobers) Waterproofing and Crack Resistance Material**

In practical situation, water can penetrate concrete / cement under two conditions. Firstly, hydrostatic pressure on one surface of concrete / cement would result in water forced to travel through channels, which interconnect the two faces of concrete / cement. Secondly, water could be absorbed merely by capillary action and find its passage through the concrete to a surface where it evaporates, as the surface is exposed to unsaturated air.

A regular replenishment of water from the surface in contact with water results in a constant flow of water through concrete / cement.

The presence of inter-connected voids / pores and water channels are the most common factor in all concretes / cement which allow passage of water. Absence of surface voids and their inter connection would ensure that water movement can not take place. Excellent resistance to the formation of Cracks by improving workability and cohesiveness Micronised insoluble particles resists the formation of Cracks.

### **MULTI – ACTION PERFORMANCE**

Powerful, concentrated, micronized ROOFGUARD 500 in liquid form is a multi-action compound. A chemical interaction between ROOFGUARD 500 & wet cement / concrete occurs with the following results.

Helps in controlling the water cement ratio by imparting improved workability & cohesiveness, this preventing formation of inter connected water channels and capillaries and therefore a reduction in the permeability of cured cement / concrete.

Cellular structures of cement / concrete is considerably changed with a much reduced number of pores / voids / water channels, the cellular structure is now changed into separated isolated and disconnected voids / pores / water channels, which would prevent the passage of water / moisture vapour.

Millions of micronized insoluble, water repellent particles are formed, the micronized minute droplets / particles provide a water repellent / hydrophobic coating on the surface of voids. Capillary channels / pores, as well as blocking pores in cement concrete.

The ROOFGUARD 500 increases resistance to water penetration by action as a filler for pores and capillaries as well as forming a water - repellent / hydrophobic coating within the pores and capillaries and acting as GUARD against water movement, all these consequences, concrete / cement is rendered completely watertight & damp-proof.

### **ROOFGUARD 500 MECHANISM OF WATERPROOFING**

Normal cement / concrete surface 'wet' easily as the necessary pressure required for wetting is low due to surface tension forces which pull water inward, into pores, channels.

Micronized water repellent / hydrophobic particles produced by a chemical interaction between ROOFGUARD 500 & wet cement form a water repellent coating on the walls / surface of capillary channels. This water repellent / hydrophobic coating effects a reverse angle of contact, therefore surface tension forces / energy now push the water out of the capillary channels / voids / pores etc.

500ml of ROOFGUARD 500 coming in contact with wet cement / concrete normally would produce approximately 5000-6000 millions insoluble water repellent / hydrophobic particles of 20 micron mean diameter, capable of providing a secure water repellent coating on the surface of capillary channels / voids / pores, as well as blocking the same in cement concrete.

## OTHER BENEFITS

In addition to its remarkable waterproofing efficiency, ROOFGUARD 500 also offers other important benefits, as given hereunder:

- Improves workability and cohesiveness of the mix.
- Less water required for a given slump
- Prevents bleeding, segregation, shrinkage cracks and efflorescence.
- Stronger bonding with steel reinforcements
- Satisfactory waterproofing even in less well-graded concrete mix.
- Much improved and smoother appearance concrete.

## IMPORTANT PRECAUTIONS

The following precautions are necessary at construction stage for avoiding frequent costly repairs and recurring problems afterwards.

Just enough water for making workable cement/concrete mix should be used. Use of excess water results in bleeding. Segregation and formation of water channels.

As far as is possible, aggregates should be well-graded and the sand should contain adequate quantity of fine particles.

Proper curing for the first seven days is very important because major improvements occur during this period. By constant curing during the hydration process, cement gel is formed which reduces voids, pores and capillaries.

## MIX PROPORTION

For all waterproofing requirements, the recommended dosage of concentrated ROOFGUARD 500 is 500ml Per Bag of 50 Kgs. Cement.

## HOW TO USE

ROOFGUARD 500 Mix 500ml liquid 3-5 Litres of water and add the same to cement / concrete mix and pour additional water required for one bag of cement, mix as usual.

**SHELF LIFE :** 2 Years (24 Months)

**PACKING :** 500ml, 1 Ltr., 5 Ltrs, 10 Ltrs., 20 Ltrs. & 210 Ltrs containers

## ENVIRONMENT & SAFETY

ROOFGUARD 500 is non-toxic and non flammable, making it environment friendly.

Splashes of ROOFGUARD 500 coming in contact with skin should be washed with water for easy removal.

If it comes in contact with eyes wash with plenty of water. If irritation persists, obtain medical help.

Whilst **ARMSTRONG CHEMICALS PVT. LTD.** strives to ensure that any advice, information or recommendation given are appropriate and correct. It cannot accept any liability directly or indirectly arising out of the use of products since the method and place of application of the products are beyond its control.



**Manufacturers :**



**ARMSTRONG CHEMICALS PVT. LTD.**

**An ISO 9001 : 2015 Certified Company**

**36/1, G-5, New International Airport Road, Ganga Nagar, BANGALORE - 560 032.**

**e-mail : [armstrongchemicals@gmail.com](mailto:armstrongchemicals@gmail.com); web : [www.armstrong.in](http://www.armstrong.in)**

**Please Contact for Customer Care Information : 09880688665**

**Authorised Distributor / Stockist**

**TRUSTED AND ACCLAIMED FOR ITS  
EXCELLENT DEPENDABLE MULTIPLE  
ACTION PERFORMANCE OF WATERPROOFING**

