

## ISO American Global Standards Certified ARMSTRONG's Product

# ROOFPLAST AEA

#### INTRODUCTION

Air Entraining Agent Complies with I.S. 9103-99 Standards

Chloride / Sulphate Free

ROOPLAST AEA: Formerly known as ROOFBOND AEA Approved and extensively using in many State & Central Govt. Project works and Approved & listed in Schedule of Rates for Building of Government of Andhra Pradesh by the Committee of the Chief Engineers.



#### **DESCRIPTION OF THE PRODUCT**

**ROOFPLAST AEA** Air Entraining, Concrete plasticizer and water reducing agent represents a great achievement in concrete technology, formulated after extensive research and experiments, it is a very efficient and dependable Chloride free, Concrete plasticizing & water reducing compound confirming to I.S. 9103-99 equal to

The significant benefit that purposeful Air Entraining concrete plasticizer had approximately 1% additional air entrainment contributes to concrete have been fully established and recognised in technically advanced countries, after thousands of tests and experiments extending over many years. As a result, these compounds are regularly used in European countries and U.S.A. in concrete works, more particularly, in mass concrete - such as dams, barrages, canal lining, port projects, etc., etc. and also Slabs and all concrete structures requiring better workability.

Purposeful entrainment of air accomplished by adding ROOFPLAST AEA to the concrete mix, results in the dispersion of non-coalissing spheroids of air. Increased dispersion of a solid in a liquid leads to greater fluidity. ROOFPLAST AEA lubricates the harsh mix and increases its cohesiveness and plasticity, consequently contributing immense benefits to concrete.

#### **ADVANTAGES**

The results of tests carried out in laboratories and at project sites, have conclusively proved the significant advantages of using ROOFPLASTAEA, as given hereunder.

- Completely watertight concrete through change in internal pore structure.
- Many fold increase in the durability.
- 1º 40% increase in the durability of structure subject to sulphate salt, sea water and other aggressive waters.
- Remarkable improvement in the workability, choseiveness and plasticity of the mix.
- Considerable reduction in water to cement ration without any loss of workability.
- Absolute protection to steel reinforcements from rust and corrosion.
- Distinct reduction in bleeding, segragation, honeycombing, hair-cracks, weak patches, rock pockets, weak & porous layers.
- Considerably reduced drying shrinkage, surface, crazing, pitting and sand streaks.
- Improved bonding at construction points and with steel reinforcements.
- Far greater resistance of concrete against the disruptive effects of frost freezing and thawing.
- Satisfactory concreting even with less well graded aggregates.
- Much less breakages and damage to pre-cast concrete in green state.
- Better and smoother appearance of concrete.
- Greater covering capacity of the mix/mortar and remarkable ease of its placing.
- Improved resistance of concrete against thermal changes and marked reduction in cracking and crazing in screeds and renders.
- Deficiency of fine particles in sand made up.









FREE FLOW CONCRETE WORKS

**ROAD WORKS** 

DAM CONSTRUCTION WORKS

CANAL LINING WORKS

#### **IMPORTANT**

- 1. At site of major projects, the mixing proportion of ROOFPLAST AEA should be determined by tests conducted according to the specified mix design, using job cement and aggregates. Tests should be conducted by varying the dosage of ROOFPLASTAEA between 5 to 25ml. per bag of cement.
- 2. Each percent of enetrained air permits a reduction in mixing water from 2 to 4 percent, with some improvement in workability and with no loss in slump.
- 3. Dosage of ROOFPLAST AEA should not exceed 25ml. per bag of cement and should reduce water / cement ratio to get good results.

#### DOSAGE

Depending on the workability requirements, the dosage of ROOFPLAST AEA can be varied from as low as 5ml. to maximum of 25ml. per bag of cement. In most cases, however, ROOFPLAST AEA serves adequately with a mixing proportion of 15-20 ml. per bag of cement. The dosage should be increased to maximum 25ml. per bag of cement for lean concrete mixes, for hand-mixed cement concrete as well as for mixes requiring greater fluidity.

Generally recommended dosage 15ml. per bag of 50 Kg. cement to achieve 5% Air entrainment.

#### DIRECTIONS

- 1. Stir the compound thoroughly before use.
- 2. For convenience, First mix one liter of ROOFPLAST AEA in 49 liters of water and ensure that the compound is completely dissolved in water. For every bag of cement, use one liter of this batch solution, if the dosage of ROOFPLAST AEA is determined at 20ml., use at 750 ml. if the dosage is 15ml and so on

SHELF LIFE: 3 Years

PACKING: 5, 10, 20, 30 & 210 Ltrs Pack

**ARMSTRONG** products are tested, approved and extensively used in the works of CPWD., State PWDs', Irrigation, Housing Boards, Thermal / Hydel Power Projects, Steel Projects, Road Projects, Water works Projects, MES, Railways & Scores of important projects Internationally.

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: 2008 Certified Company

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