# OSPERSE A.E.A.

OSPERSE AEA is a specially formulated powdered air entraining additive based on a blend of surfactants.

## Description

OSPERSE AEA is a specially formulated powdered air entraining additive based on a blend of surfactants.

OSPERSE AEA is a fine, free flowing powder to improve dispersion in dry bagged cementitious and gypsum based systems.

## Action

Air entrainment is recognised as the most effective way to improve the durability of mortars and concrete in exposed environments. This is important in colder climates where frost and freeze - thaw cycles can cause scaling and cracking within the mortar or concrete.

Air entraining agents help to improve durability by creating microscopic air voids that trapped water can expand into when the mortar / concrete freezes, thus preventing cracks caused by natural expansion.

Entrained air voids in the mortar / concrete will also increase durability in harsh environments where concrete is exposed to deicing salts and sulphates.

## Workability and Handling

Workability and handling are also improved by the lubricating action of the microscopic bubbles in the mortar / concrete. Mortars and renders become easier to apply and concrete will flow better. Bleeding and Shrinkage will be reduced because less water is needed to obtain the desired workability.

## Benefits

- Excellent plasticity and workability.
- Improved frost resistance.
- Uniform and stable air bubble formation.
- Better spread rates, reduced labour costs.
- Reduced drying shrinkage and cracking.
- Improved bond to substrates in mortars and renders.

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OSPERSE AEA is a specially formulated powdered air entraining additive based on a blend of surfactants.

## Use

OSPERSE AEA is used to entrain microscopic air bubbles in systems based on cement and gypsum.

## Method of Use

OSPERSE AEA should be added to the mixer after the addition of sand and cement to provide adequate dispersion on the finished product.

## Typical Properties

### Appearance

Off white, free-flowing powder

### Density

1.20 g/cm³ (approximately)

### Addition Level

The natural variation in cements, hydraulic binders, gypsum, aggregates and ambient temperatures all affect the addition level required for a given level of air entrainment. Trials should be carried out to determine optimum dosage levels - as an initial guide, an addition level of 0.1% on weight of formulation is recommended. This may have to be adjusted depending on the level of air entrainment required, raw materials and application.

High levels of OSPERSE AEA will result in excessive air entrainment which in turn leads to a reduction in compressive strengths. The level of strength reduction will be dependant on the amount of air entrained in the system.

## Compatibility

OSPERSE AEA is compatible with all OPC and hydraulic binders, including ground granulated blast furnace slag, pulverised fly ash, hydrated lime and gypsum.

## Health & Safety

Avoid contact with skin or eyes. Protective goggles and gloves should be worn. Refer to Material Safety Data Sheet for full details.

## Storage

OSPERSE AEA should be stored in cool, dry conditions. If correctly stored, minimum shelf life is 12 months.

## Packaging Unit

25kg paper sack.
1000 kg per pallet.



**OSCRETE is a division of Christeyns UK Ltd.**
**Rutland Street**
**Bradford**
**West Yorkshire**
**BD4 7EA**
**United Kingdom**

**Telephone:** +44 (0)1274 393286
**Fax:** +44 (0)1274 309143
**e-mail:** info@oscrete.co.uk
**Website:** www.oscrete.co.uk

**DS 6952/01/01 06/10/06**