

TechnoPlast AEA

(Air Entraining Admixture)

Smartcare TechnoPlast AEA is a chloride free air entraining admixture based on organic materials. It is supplied as a translucent water white colored solution which instantly disperses in water. TechnoPlast AEA acts at the interface between the mixing water and cement/aggregate particles to produce stable and microscopic air bubbles, which are evenly distributed throughout the concrete. The entrained air enhances durability by providing protection against the rapid temperature changes found in freezing and thawing conditions and with the use of de-icing salts.

AREA OF APPLICATIONS

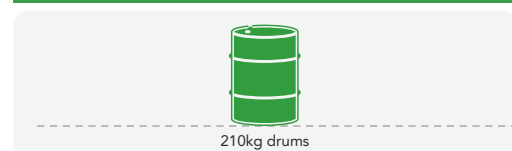
To produce air entrained concrete for increased durability and resistance to damage by frost and deicing salts. Typical applications include concrete roads and bridge decks, airport runways and taxiways and other extensive areas of concrete exposed to potential frost damage. To improve cohesion and workability of concrete mixes where poorly graded aggregates must be used and bleeding, segregation or sand runs occur. As part of a combined admixture system for the production of ready mixed retarded mortar.

PRODUCT BENEFITS

- Air entrainment increases the resistance of concrete to attack by frost and de-icing salts, reducing problems of surface scaling and concrete failure
- Entrained air bubbles assist in the formation of a stable cohesive mix, reducing segregation and bleeding
- Air entrainment improves workability and helps produce a dense, uniform, close textured surface free from gravel nests and sand runs, so further enhancing durability
- Excellent air bubble stability allows use with a wide range of aggregate qualities and mix conditions

PRODUCT FEATURES

AVAILABLE PACKS



Storage: TechnoPlast AEA has a minimum shelf life of 12 months in unopened containers under normal warehouse conditions.

PROPERTIES

Appearance	Transparent clear liquid
Chloride content	Nil to BS 5075
Specific gravity	1.01 at 27°C
Alkali content	Typically, less than 14.0g Na ₂ O equivalent /liter of admixture.
pH	Minimum 6

Standards compliance:

TechnoPlast AEA complies with BS 5075 Part 2, BS 4887 Part 1, ASTM C260

HOW TO APPLY

Typical dosage:

The optimum dosage of TechnoPlast AEA to meet specific requirements must always be determined by trials using the materials and conditions that will be experienced in use. This allows the optimization of admixture dosage and mix design and provides a complete assessment of the concrete mix.

As a starting point for trials a dosage of 0.08 liters/100kg of cement will typically give an air content of 5% + 1.5% in a medium workability concrete of 300 - 350 kg/m³ cementitious content. Where cement replacement materials are used they should be included in the cementitious content for purposes of calculating admixture dosage. The presence of PFA or microsilica may increase the dosage required to obtain a particular air content

Cleaning:

Spillages of TechnoPlast AEA can be removed with water

Health & Safety instructions:

TechnoPlast AEA is non-toxic. Any splashes should be rinsed thoroughly with water. Splashes to the eyes should be washed immediately with water and medical advice should be sought.

Fire:

TechnoPlast AEA is non-flammable.