

# CAPENTRAIN

## AN AIR ENTRAINING CONCRETE ADMIXTURE

### DESCRIPTION

CAPENTRAIN is a resin based air entraining agent used for the production of air entrained concrete.

### FEATURES

CAPENTRAIN acts on the interface of the cement, aggregate particles and mixing water to entrain stable microscopic air bubbles evenly distributed throughout the concrete matrix.

### STANDARDS

CAPENTRAIN complies with the specification of ASTM C-260.

### USES

- To produce air entrained concrete.
- To increase the durability of concrete and its resistance to damage by frost and de-icing salts.
- Can be used to increase the cohesion of mix to overcome bleeding, segregation and sand runs when poorly graded aggregates are used.

### ADVANTAGES

- Improves workability and cohesion of mixes.
- Reduces segregation and bleeding.
- Improved resistance to freezing and thawing.
- Disruptive action of deicing salts and other liquids will be reduced.
- Reduces the need for fines, resulting in production of uniformly smooth surface when good quality fine sand is not available.
- Provide dense, uniform, close texture surface to concrete.
- Reduced permeability and thereby increased water tightness.

### TYPICAL PROPERTIES

#### Appearance:

Dark brown liquid.

#### Specific gravity:

1.04 at 25 °C

#### Chloride content:

Nil to BS 5075.

#### Toxicity:

Non toxic.

#### Compatibility with cement:

Compatible with all type of Portland cement. It can also be used in mix designs containing fly ash and microsilica.

#### Compatibility with other admixtures:

CAPENTRAIN is compatible with other Ahlia admixtures, provided they are added separately to the mix.

#### Shelf life:

At least 18 months if stored in tightly closed containers at normal ambient temperature.

### DIRECTIONS FOR USE

CAPENTRAIN is supplied ready to use. It should be added to concrete mix during the mixing process at the same time along with mix water. After addition of CAPENTRAIN the concrete mix has to be mixed for minimum 4 minutes to get the optimum result.

#### Dosage:

0.024 to 0.036 liter per 50 kg of cement.

The optimum dosage of CAPENTRAIN must be determined by site trials with the particular concrete mix intended for use.

#### Dispensing:

Best by dispenser into the gauging water, or directly with water into the mixer. However, in order to achieve a uniform blend, it is recommended to dilute it prior to mixing.

#### Overdosing:

Overdosing should be avoided as far as possible. An overdose of double the recommended dose will drastically reduce the strength of concrete.

### SAFETY PRECAUTIONS

CAPENTRAIN is alkaline. Prolonged contact with skin should be avoided. Splashed to eyes should be washed immediately with clean water and

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medical advice should be sought. It is advisable to use goggles and gloves while handling CAPENTRAIN.

### PACKAGING

CAPENTRAIN is supplied in 205 liter barrels and 20 liter pails.

### STORAGE

Preferably store in sealed conventional containers, protected from extreme weather conditions.

### GENERAL NOTES

- Compressive strength can be slightly reduced through the addition of an air-entraining agent. However, this is mostly compensated for by a reduction in w/c ratio.
- Higher cement content and finer cement reduce air content.
- Increased fine sand content increases air content.
- Prolonged compaction lowers air content and should be avoided.
- With increased mixing time, air content will at first increase, but will reach a constant level in mixers after approx. 2 minutes and in truck mixers after approx. 20 minutes.
- Pumping can reduce air content. Air content in excess of 6% may cause serious disturbances.
- A sharp increase in atmospheric temperature will lower the air content of the mix by 30% to 50%.

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#### TECHNICAL SERVICE:

Our Technical Service Department is available at any time to advise you in the correct use of this product or any other Ahlia products.

**Note :** The information presented herein is based on the best of our knowledge and expertise for which every effort is made to ensure its reliability. Although all the products are subjected to rigid quality tests and are guaranteed against defective materials and manufacture, no specific guarantee can be extended because results depend not only on quality but also on other factors beyond our control.

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