

Darex[®] AE3

Air Entraining Agent

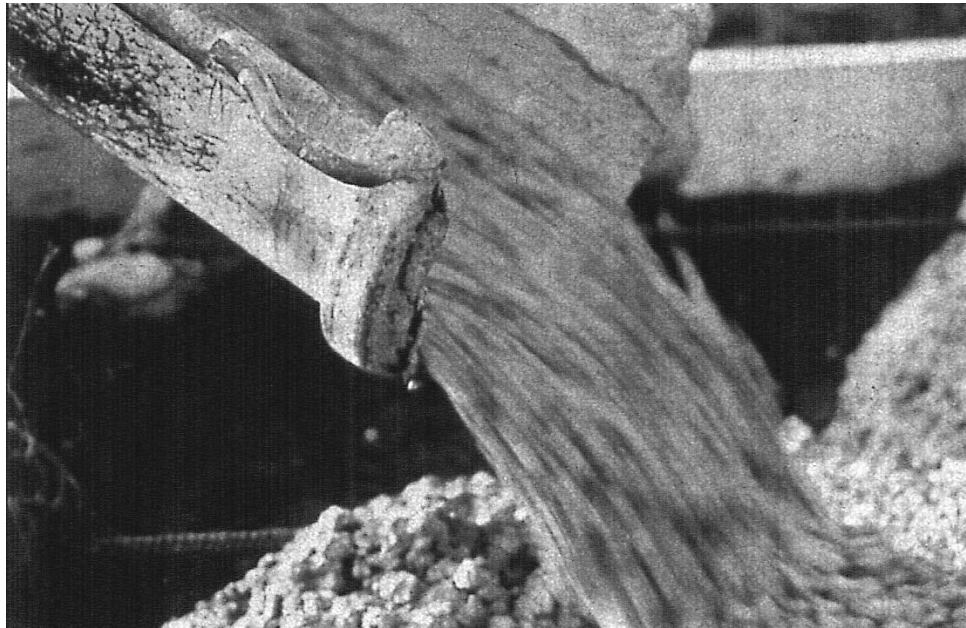
Description

Darex[®] AE3 is a liquid air-entraining agent for use in the production of air entrained concretes, blocks and cementitious compositions.

Darex AE3 is formulated from carefully selected raw materials and is manufactured under controlled conditions. It is based on the salt of an ether sulphate and conforms to EN934-2, ASTM designation C260 and complies with BS 5075: Part 2, for air-entraining admixtures.

Benefits and Advantages

- Improves resistance to freeze/thaw conditions.
- Resistance to the disruptive action of de-icing salts and other liquids is improved.
- Cohesion of mixtures liable to segregation is improved.
- Bleeding of excessive mixing water is reduced.
- Entrained air is not readily lost from plastic concrete mixtures on standing and prolonged mixing does not normally cause excessive over entrainment of air.
- Darex AE3 is particularly suitable for use in conjunction with concretes containing sands into which it is difficult to entain air.



Typical Properties

Appearance:

Amber liquid

Air Entrainment:

See "Addition Rates"

Chloride Content:

nil as per EN480-10

Freezing Point:

-2°C

Addition Rates

Range: 30ml - 180 ml per 100kg cement.

The amount of Darex AE3 required is dependent on the characteristics of the concrete or mortar mixtures concerned, together with the degree of air entrainment required. Factors which can affect this are:

- Nature and grading of the aggregates, particularly fine aggregates.
- Cement content and type of cement used.
- Water/cement ratio
- Workability of the mixture
- Temperature
- Type and efficiency of mixing equipment.
- Normal good site control gives excellent consistency of results.

It is essential that the final assessment of the dosage should be made after the site trials. **As a guide to these trials, an addition rate of 60ml - 180ml Darex AE3 per 100kg cement is recommended** (where Darex AE3 is used in concretes containing pulverised fuel ash, the dosage rate may typically be twice the range quoted above). For semi-dry mixtures 280ml - 400ml Darex AE3 per 100kg cement is recommended.

For advice and assistance with your trials we would recommend that you consult Grace Construction Products.

Darex AE3 is supplied ready for use. It should be added to concrete or mortar mixtures during the mixing process at the same time as the water or the aggregates.

Overdosing with Darex AE3 will normally produce an increase in air content and workability, but will have no effect upon setting time or early strength development.

Compatibility

With cements: Darex AE3 can be used with all types of Ordinary Portland Cement, including Sulphate Resisting Cement. For use with special cements we recommend that you consult Grace Construction Products.

With other admixtures:

Darex AE3 should not be pre-mixed with other admixtures. The performance of the material may be affected by the presence of other chemicals and we recommend that Grace Construction Products be consulted in such circumstances.

Dispensing

It is preferable that liquid admixtures for concrete should be introduced into the mixer by means of automatic dispensing equipment. A range of equipment is available, and advice on supply and fitting is available from Grace Construction Products on request.

Packaging

Darex AE3 is supplied in 205-litre, non-returnable containers. Alternatively, bulk deliveries can be arranged.

Storage

Darex AE3 should be stored above 0°C and protected from frost. If the product does freeze, it should be carefully thawed before mixing.

Storage life in manufacturer's drums: 12 months from date of manufacture.

Storage life bulk storage: 12 months from date of delivery.

Health and Safety

See Darex AE3 Safety Data Sheet or consult Grace Construction Products.



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