

Air-entraining admixture for concrete

PRODUCT

Admix GEL A 50 is a liquid air-entraining agent, which increases the durability and quality of the concrete and its resistance to freezing and thawing and de-icing salt scaling.

The millions of tiny air bubbles proportionately distributed throughout the entire mass of wet concrete mixture enables it to achieve higher workability retention, better cohesion, eliminates shrinkage cracking and provides greater resistance to freezing and thawing damage without any remarkable decline in concrete mechanical properties.

PROPERTIES

Admix GEL A 50 introduced into the concrete, generates a network of stable microscopic air bubbles, thus diminishing the phenomena of capillarity.

In fresh concrete, **Admix GEL A 50** produces some plasticizing effect which allows the reduction of water demand by approximately 6% and enhancement in workability retention.

Admix GEL A 50 improves frost resistance of concrete.

Admix GEL A 50 prevents bleeding and improves cohesion.

The consolidation of the plastic concrete becomes better enabling the hardened concrete to be denser and develop a waterproofing effect.

This product has been developed specially to resist water permeability in hardened concrete and to secure excellent surface finish and limit the risk of errors due to excessive dosage.

SCOPE OF USE

Admix GEL A 50 is suitable for large areas of concrete where damage by frost or shrinkage cracking is likely to happen.

Admix GEL A 50 is suitable to use with various cement types, including ordinary portland cement and concrete made with silica fume, GGBS, and fly ash in the following areas:

- Paving of motor-ways
- Airport runways
- Barriers and reservoirs
- Sea works
- Large structures
- Correction of grain-size distribution of natural sands that are poor in fine elements

CHARACTERISTICS

Appearance	Brown liquid
Specific gravity at 20°C	1.015
Chloride content	Zero to BS 5075

APPLICABLE STANDARDS

Admix GEL A 50 complies with ASTM – C 260, BS 5075

INSTRUCTIONS FOR USE

Admix GEL A 50 is totally miscible in water. It must be incorporated into the mixing water.

The quantity of water and dosage of **Admix GEL A 50** can be determined considering the properties required for the concrete mixture.

DOSAGE RATES

Dosing rates ranges from 50 to 900 ml/100 kg of cement.

Special laboratory trials should be carried out to define the optimum dosage needed to obtain the required air content.

Special considerations are to be taken while dispensing **Admix GEL A 50**.

PRECAUTIONS

The maximum efficiency will be determined after a test of suitability.

The entrained air is essentially a false fine aggregate.

One must consider it as such and reduce the quantity of sand corresponding to the additional volume of entrained air. The amount of entrained air must be verified periodically in concrete, since it varies with the nature of the aggregate and W/C ratio.

PACKAGING

Admix GEL A 50 is supplied in:

Bulk, barrels, and small casks

STORAGE

Admix GEL A 50 can be stored up to 1 year from manufacturing date under cover, out of direct sunlight and protected from extreme temperatures.

HEALTH & SAFETY

In case of frost, the product recovers its properties after progressive thawing and homogenizing by agitation. In case of contact with skin or eyes, rinse thoroughly with water. If irritation persists, seek medical attention. If swallowed, do not induce vomiting and seek medical attention.

QUALITY STATEMENT

All our products are manufactured to comply with our internal QA/QC program and quality management system to ensure consistency and quality.

DISCLAIMER

While the company guarantees its products against defective materials, the use and application of these products are made without guarantee since the conditions of their application

are beyond its control. It is recommended to verify with the company that the product is suitable for the intended use, and that this Data Sheet version is the latest one. The company may modify it without prior notice. Technical characteristics are listed for guidance only. For more information, please contact the company's office in your location.

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