

Airalon[®] Air-Entraining Additive

Air-Entraining Additive for Portland and Masonry Cement

Product Description

Airalon[®] is an aqueous solution of neutralized hydroaromatic and fatty carboxylic acids with the following specifications:

- **Appearance:** Dark brown liquid
- **Specific Gravity:** 1.04 (± 0.02)
- **pH:** 10 - 13
- **Foaming Tendency:** Moderate

Airalon is one of the most effective air-entraining additives yet developed for use in the manufacture of air-entraining Portland cement and masonry cements.

Action

Entrainment of air is accomplished by the development of a system of semi-microscopic bubbles introduced into the mix by agitation and stabilized by Airalon in the paste phase of the mortar or concrete.

These air bubbles act much like flexible ball bearings, increasing the mobility, or plasticity and workability, of the cement paste. This permits a reduction in mixing water with no loss of slump. Placeability is improved. Bleeding, plastic shrinkage and segregation are minimized.

Typical Applications

Airalon is widely used as an air-entraining and plasticizing agent for masonry cement and as an air-entraining agent for air entrained Portland cement.

Airalon is interground during the manufacture of these cements.

Product Advantages

- Proven performance
- Stable air
- Low addition rates
- Economical to use
- Easy and safe handling

Handling

Airalon may be sprayed as received into the mill's first compartment or added onto the clinker conveyor belt. Dilution with up to 5 parts water may be used to ensure greater proportioning accuracy and better distribution of Airalon.

Suitable proportioning pumps with adjustable flow rates should be used for consistent performance of the additive.

Addition Rates

The dosage rate of Airalon will depend on the fineness and the air content requirement of each cement as shown below:

| CEMENT TYPES | AIRALON DOSAGE (%) |
|--------------|--------------------|
| I A & II A | 0.03-0.06 |
| III A | 0.06 - 0.09 |
| Masonry | 0.10 - 0.35 |

The optimum dosage rate must be determined during full-scale cement mill tests.

Dosing Equipment

GCP cement additives should be accurately dispensed through a calibrated dosing system, suitable for the cement mill and output required.

Specification Compliance

Airalon is specified as a reference additive under ASTM C 465 specification for air-entraining additions.

Packaging

Airalon is supplied in 210 L (55 gal) drums, or in bulk by tanker trucks. It contains no flammable materials.

Storage

Protect from freezing. Once frozen, the product should be thawed out slowly and re-mixed thoroughly prior to use.

Technical Services

Field Engineers from GCP are available to assist in laboratory and mill test evaluations of Airalon. Complete testing equipment and methods for analyzing mill performance are also available during plant trials.