AIRALON®

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.

Product Advantages

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

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.
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:

<table>
<thead>
<tr>
<th>CEMENT TYPES</th>
<th>AIRALON® DOSAGE (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I A &amp; II A</td>
<td>0.03 - 0.06</td>
</tr>
<tr>
<td>III A</td>
<td>0.06 - 0.09</td>
</tr>
<tr>
<td>Masonry</td>
<td>0.10 - 0.35</td>
</tr>
</tbody>
</table>

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.