

# ARMOR AIR ENTRAINMENT

## AIR-ENTRAINING ADMIXTURE

### PRODUCT DESCRIPTION

Armor Air Entraining admixture provides concrete with maximum protection by establishing air bubbles that are ultra-stable, small and closely spaced. It is specifically designed with a lower active material content for concrete where low dosages of air-entraining admixtures are required. It also allows for air entrainment in stiffer concrete mixes. The admixture increases the durability of concrete, making it more resistant to the damaging effects of freeze/thawing, while improving workability and reducing bleeding.

### BENEFITS

- Reduced permeability – increased water tightness
- Reduced segregation and bleeding
- Improves workability
- High resistance to damage from cyclic freezing and thawing
- Increased compressive strength in lean mixes.
- Substantially increased durability.
- Increases moisture retention for cement hydration
- Increased resistance to scaling from deicing salts
- Improved plasticity and workability Improved air-void system in hardened concrete

### RECOMMENDED USES

ARMOR AIR ENTRAINMENT is typically used to produce:

- In exposed concrete using low slump mixes.
- The production of concrete pipe; vibrated precast such as boxes, culverts, transitions, risers, catch basins; highway paving; curb and gutters; sidewalks; driveways and all other concrete which is subjected to freeze thaw damage or the harmful effects of de-icing salts.
- In increasing the workability of concrete, especially in lean or harsh mixes.
- Production of high quality normal or lightweight concrete (heavyweight concrete normally does not contain entrained air).

### STANDARD

ARMOR AIR ENTRAINMENT admixture meets the requirements of ASTM C 260, AASHTO M 154, and CRD-C 13.

### DOSAGE

There is no standard dosage for ARMOR AIR ENTRAINMENT admixture. The exact quantity of air-entraining admixture needed for a given air content of concrete varies because of differences in concrete making materials and ambient conditions. Typical factors that might influence the amount of air entrained include: temperature, cementitious materials, sand gradation, sand-aggregate ratio, mixture proportions, slump, means of conveying and placement, consolidation and finishing technique.

The recommended dosage range for ARMOR AIR ENTRAINMENT is 30 - 3000 mL/100 kg of cementitious material.

### APPLICATION MODE

Introduce ARMOR AIR ENTRAINMENT admixture to the concrete mixture using a dispenser designed for air-entraining admixtures; or add manually using a suitable measuring device that ensures accuracy within plus or minus 3% of the required amount. For optimum, consistent performance, the air-entraining admixture should be dispensed on damp, fine aggregate or with the initial batch water. If the concrete mixture contains lightweight aggregate, field evaluations should be conducted to determine the best method to dispense the air entraining admixture.

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### HEALTH AND SAFETY

- Wear protective gloves and eye protection during work
- Avoid contact with eyes and skin
- If skin contact occurs, wash skin thoroughly
- If in eyes, hold eyes open and flood with warm water and seek medical attention immediately

### HANDLING AND STORAGE

1. Precautions for safe handling:  
Avoid aerosol formation. Avoid inhalation of mists/vapours. Avoid skin contact.  
No special measures necessary provided product is used correctly.
2. Conditions for safe storage, including any incompatibilities.  
Further information on storage conditions: Keep only in the original container in a cool, dry, well ventilated place away from ignition sources, heat or flame. Protect from direct sunlight.
3. Dispose of contents/container to hazardous or special waste collection point.

### STABILITY AND REACTIVITY

1. Reactivity: No hazardous reactions if stored and handled as prescribed/indicated.
2. Chemical stability: The product is stable if stored and handled as prescribed/indicated.
3. Possibility of hazardous reactions: The product is stable if stored and handled as prescribed / indicated.
4. Conditions to avoid See MSDS section 7 - Handling and storage.
5. Incompatible materials Substances to avoid: strong acids, strong bases, strong oxidizing agents, strong reducing agents
6. Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicate

### LIMITED WARRANTY

All recommendations, statements and technical data herein are based on tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty either e x p r e s s e d or implied. User shall rely on his or her own information and tests to determine suitability of the product for the intended use and user assumes all risk and liability resulting from his or her use of the product. Nothing contained in any supplied materials relieves the user of the obligation to read and follow the warnings and instruction for each product as set forth in the current Technical Data Sheet, product label and Safety Data Sheet prior to product use away.

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