

MICRO-AIR[®] 303

Air entraining admixture for concrete

DESCRIPTION

MICRO-AIR 303 is an ultra stable air entraining admixture for use in all types of concrete. **MICRO-AIR 303** has been formulated to meet and exceed the requirements of ASTM C260 and relative specifications

FIELDS OF APPLICATION

- low slump concrete
- flowable concrete
- high temperature concrete
- concrete with extended working times
- lightweight and prestressed concrete
- for imparting workability to lean harsh mixes
- to reduced bleeding caused by grading deficiencies in the concrete materials
- increasing the entrained air content of concrete with air entraining Portland cements

FEATURES AND BENEFITS

Entrainment of optimum air content in concrete by **MICRO-AIR 303** contributes to the following improvements in concrete qualities:

- | | |
|---|---|
| Good cohesion | Reduces segregation and bleeding. |
| Improved ability to entrain and retain air in concrete | Increases resistance to damage from freezing and thawing. |

TYPICAL PERFORMANCE DATA

The relationship between the dosage of **MICRO-AIR 303** and the increase of air entrained is shown in the figure above.

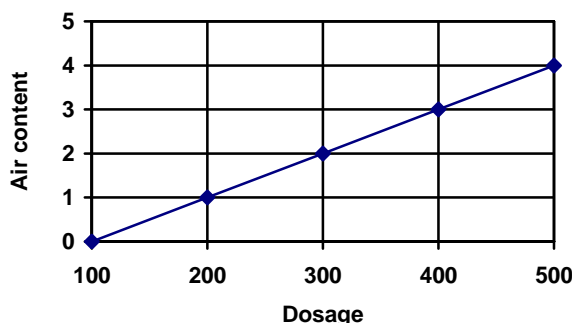


Figure 1

Compatibility

MICRO-AIR 303 is compatible with other admixtures - water reducers, accelerators and retarders.

MICRO-AIR 303 can be blended with a POZZOLITH[®] admixture without causing any adverse chemical reaction. With conventional air entraining agents, each admixture should be added separately through a separate dispenser to the concrete mix. Blending before adding to the mix produces sedimentation that clogs the dispenser and its tubes as well as impairing the air entraining action to a considerable degree.

APPLICATION

When **MICRO-AIR 303** is mixed into POZZOLITH[®] solutions, agitate thoroughly before use.

You may dilute it into any solution for your job-site condition.

How to dilute **MICRO-AIR 303** (1 % solution)

10g of MICRO-AIR 303 (approx. 10ml)	+	990g of water (990ml)	=	1,000g of 1% MICRO-AIR 303 solution (1,000ml)
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Degree of air entrainment using 1% **MICRO-AIR 303** solution:

When 2ml (2g) of 1% **MICRO-AIR 303** solution per 1kg of cement is added into the concrete mix, an air content of 0.3% - 1.0% is usually entrained.

Measure the air content of the trial mix concrete and increase or decrease the quantity of **MICRO-AIR 303** as may be needed to obtain the desired air content in the work mix.

Example: In the case of a 4.0% air content requirement:

- (1) Without **MICRO-AIR 303**: 2.5% of air content was measured in the first trial mix.
- (2) 1.5% (4.0% - 2.5%) of air content should be entrained, Cement content x 0.003% of **MICRO-AIR 303** is added into the next trial mix. In other words, 3ml of 1% **MICRO-AIR 303** solution per 1kg of cement should be added.

Typical factors which might influence the amount of air entrained are: quality of materials, mix design, concrete mixing time per batch, temperature, use of extra fine materials such as fly-ash, etc.

Check the air content of the first batch and make further adjustments if needed. In mixes that require higher dosages to obtain a desired air content, consult your local BASF Construction Chemicals field representative.

BASF Construction Chemicals offices in ASEAN

Singapore

Tel :+65-6861-6766
Fax :+65-6861-3186

Malaysia

Tel :+60-3-5628-3388
Fax :+60-3-7847-6781

Indonesia

Tel :+62-21-893-4339
Fax :+62-21-893-4342

Thailand

Tel :+66-2204-9427
Fax :+66-2664-9267

Vietnam

Tel :+84-650-743-100
Fax :+84-650-743-200

Philippines

Tel : +63-2-889-4321
Fax : +63-2-889-4361



The Chemical Company

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DOSAGE

There is no standard dosage rate for **MICRO-AIR 303**. The exact quantity of air entraining agent needed for a given air content of concrete is not predictable because of differences in concrete making materials and conditions.

PACKAGING

MICRO-AIR 303 is supplied in 205L steel drums.

SHELF LIFE

MICRO-AIR 303 can be stored for 12 months if stored at temperatures above 5°C, in tightly sealed original drums. If found to be frozen, thaw it and reconstitute by stirring.

PRECAUTIONS

Health : **MICRO-AIR 303** does not contain any hazardous substances requiring labelling.

It is safe for use with standard precautions followed in the construction industry, such as use of hand gloves, safety goggles, etc.

For detailed Health, Safety and Environmental recommendations, please consult and follow all instructions on the product Material Safety Data Sheet.

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STATEMENT OF RESPONSIBILITY

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