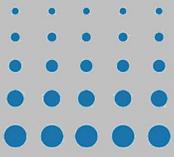


STABLE
 **AIR**®

PRESENTED BY
Cellular Concrete Technologies



MICRO-BUBBLES IN CONCRETE

Company

HISTORY



The quest for lightweight concrete is decades old and industry wide. Cellular Concrete Technologies, (CCT) was born from a vision shared more than twenty years ago by David Masters, a retired Naval Commander, and Paul Gray, a registered concrete engineer. They invented and patented the original Stable Air® Technology.

Fast forward to 2009, David Masters partners with Paul Falco, an entrepreneur with 30 years experience as a builder and together they launch Cellular Concrete Technologies, expanding a product line based

on Stable Air® Technology. Paul Falco, CEO of CCT, had earned an industry reputation for keen project assessment skills and an ability to quickly identify and resolve issues that impact schedules, costs and quality. Understanding that successful projects hinge on every detail, he re-engineered, redesigned and upgraded the Stable Air® aerator from its original prototype to its current energy-efficient, sleek, user-friendly design, bringing space age technology to an age old industry – meeting industry needs and exceeding everyone’s expectations.

qualities & benefits

- Lightweight (30-140 pcf)
- Higher Strength (125-7500+ psi)
- Freeze-thaw protection
- Sound insulation
- Reduces shrinking and cracking
- Fire-proof
- Water-proof
- Seismic Resistance
- Cost-effective
- Eco-friendly

What is STABLE AIR®

STABLE AIR® is a unique (synthetic) foaming agent formulated for use in producing non-structural, structural lightweight and structural concrete, as well as, flowable fill, back fill, CLSM materials and insulation. It is ASTM-C260 certified.

The use of STABLE AIR® produced mixtures provides:

- Stable density (unit weight)
- Easy placement by means of chutes or pumps
- Good thermal insulation
- Reduced bleeding and settlement
- Optimum workability-can be produced in either fluid or plastic consistency
- Ability to produce flow able fill and lightweight fill mixtures and insulation
- Ability to produce non-structural, LW structural and structural concrete to over 7,500 psi

STABLE AIR® foaming agent is recommended for use in the following applications:

- Use in conventional concrete applications including footings, slabs, precast panels, structural in-fill and overlays.
- Use in structural fill applications including foundation sub-base, floor slab base, pipe bedding, structural fill for block and styrene forms.
- Use in abandoned underground storage tanks and utility vaults, mines, sewers and manholes, voids under pavements and slabs and highway barriers.

STABLE AIR® is a ready-to-use application that can make any design to meet your specifications.



applications

Commercial:

- Tilt up wall panels
- Insulated floors & underlayment
- Roof insulated panels
- School construction
- Shopping malls
- Strip malls
- High-rise construction
- Retaining walls
- Concrete pipe
- Tunnel construction

Precast Products:

- Roofing tiles
- Structural block
- Structural brick

Unlimited additional applications!

Fire Protection Material:

- Plumbing, valve & equipment areas
- Factory & residential fire Protection

Infrastructure:

- Road base underlayment
- Flowable fill and backfill
- Bridge structural components
- Street and curb paving
- Highway construction
- Levee and dam repairs
- Freeway sound walls

Residential Home Construction:

- Pour on pump in place wall sections on site
- Factory produce wall & proof panels
- Footings and slabs
- Exterior wall panels
- Up to 30% cost savings of construction
- Heating and cooling cost up to 80% less
- Sidewalk and patio slabs
- Fire proof and water proof
-



product bulletin

Product Description

CCT's Stable Air® is a liquid air-entraining admixture that provides freeze-thaw resistance, enhances the finishability characteristics of concrete, and allows concrete producers to accurately control yield. Stable Air™ is comprised of a blend of synthetic foaming materials, manufactured under stringent controls, assuring both quality and consistent performance. One quart weighs approximately 2.1 lbs (1 kg).

Uses

Stable Air® is recommended for use in all ready-mix, precast, prestress and other concrete products where the intentional entrainment of a specified level of air is required. The recommended dilution rate is 120:1. ACI 201 Guide to Durable Concrete recommends that all concrete which is exposed any level of freeze-thaw exposure or is subjected to the application of de-icing salts during the winter months should be air entrained.

Stable Air® has been found to be particularly effective in both high cement factor and low slump concrete mixes, which require a very efficient air-entraining admixture. Stable Air™ is also often utilized when a very stable air void system over time is required.

Product Advantages

Air stability makes it particularly useful for longer transit times

Functions well across a wide range of concrete materials

Economical to use in concretes which are typi-

cally difficult to air entrain

Performance

Air is incorporated into concrete via mixing mechanics and stabilized into millions of discrete semi-microscopic bubbles in the presence of air-entraining admixtures such as Stable Air®. These air bubbles act much like flexible ball bearings, increasing the plasticity and workability of the concrete. This allows for reductions in mixing water with no loss of slump. Surface bleeding, plastic shrinkage and aggregate segregation are also minimized.

Through the purposeful entrainment of air, Stable Air® markedly increases the durability of concrete to severe exposures, particularly freeze-thaw cycling. It has also demonstrated a remarkable ability to impart resistance the action of frost.

Addition Rates

Stable Air® addition rates will vary according to the specified level of air required. Addition rates are also influenced by mix design parameters, material properties of the cement, fly ash, coarse and fine aggregates, and other admixtures. Also, ambient and concrete temperature, mixing time and time of addition can affect the required dosage rates.

It is recommended that pre-job testing be conducted to assure the correct dosage rate of Stable Air®.

STABLE AIR AERATOR MACHINE MODELS

Model	100 series	200/A series	300 series	Custom
Description	Mobile unit for laboratories and job sites. This model is available as a standard console or portable unit for laboratory and experimental use at universities, government research laboratories, and product research and testing facilities.	Mobile unit for construction sites and remote locations. This model is designed for the concrete producer or concrete contractor who needs to entrain concrete on the job site, rather than a batch plant. This unit can be coupled with a self starting gas generator and becomes completely self contained where the only on-site requirement is a water source of 40- 60 psi water pressure.	Custom designed unit for permanent installation at a precast or ready mix concrete batch plant. This heavy duty large production model is designed for use by medium and large sized concrete precast, pre-stressed and ready mix producers. Like Model 200 in every respect, except it is a fixed installation in the batch plant. The power source is electric. The water and compressor are connected to the plant supply with controls in the operators control center. 300A is a mini model option designed for small architectural fabricators, precasters and concrete contractors who need light weight concrete in smaller volumes.	Ready Mix truck mounted unit coupled with a sensor probe and internet transmitter for use in initial air entrainment or augmentation of Ready Mix plant entrainment, as well as adjustment of air volume to deliver precise unit volume at the job site. This unit can be remotely controlled to receive signals directly from the batch plant for air volume adjustment.
Production Rate	0.8- 2.0 CFM min	4-6 CFM / min	10-20 CFM / min	
Measures	18" X 24" X 30"	2' X 3' X 4'	4' X 4' X 4'	
Weight	75 lbs	120 lbs	150 lbs	



“With the capabilities of the Stable Air system, the quality and economics of concrete construction will change dramatically... you are heading the pack of new air-entrained providers.”

**David C. Breiholz, P.E., SECB, Structural Engineers Assoc. of California,
Honorary Member and Former Chairman, Quality Assurance Committee**

MEMBERSHIPS



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