

Cellular Concrete Training Classes Available



Cellular Concrete Technologies

Be trained in the design and production of cellular concrete

We take all the guess work out of cellular concrete production. You do not need to purchase new equipment to train your crew.

Our highly skilled cellular concrete production instructors will teach you how to produce the correct density and psi strength material every time



Types of cellular grout or cellular concrete we will train you to produce

- ◆ Annular grout
- ◆ Abandoned water and sewer line fill
- ◆ CLSM (controlled low strength material)
- ◆ Light weight floor decking
- ◆ Light weight road base
- ◆ Sink hole and void fill material
- ◆ Structural light weight material
- ◆ Underwater cellular repairs and fill



Injecting foam into mixer truck

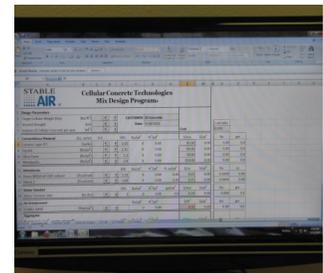
What is cellular concrete

Cellular concrete is an engineered Portland cement slurry combined with precise amounts of density controlled foam. The Portland cement slurry and foam are mixed producing a light-weight mixture containing uniformly distributed air cells. In it's rigid form it can be thought of as cement based grout having air as the aggregate. Density can be varied from 20-120 lb./ft³. Compressive strength ranges from 20 to 4,500 psi.

Cellular Concrete The Complete Guide

This comprehensive guide is a must read for anyone interested in producing cellular concrete and will literally save you hundreds of hours in research and development.

Text book issued inclass



Mix design program
Issued in class

Hands on experience

Production training includes:

- Creating batch designs to meet specifications of the cellular grout, CLSM or low density cellular concrete required
- Coordinating with the local Redimix provider to maintain a steady flow of cellular grout slurry
- Set up foaming station to add cellular foam to the cement slurry as per the approved batch design
- Take samples to maintain density throughout the entire pour
- Provide the correct chemical admixtures and foam generating equipment
- Coordinate with the local concrete pumper and installation crew for a seamless installation

Cellular Concrete Batch Designs

Included in Batch design training

- What is Cellular Concrete
- How to mix cellular concrete
- Creating a concrete mix
- Why is CLSM used
- Mix Design Guidelines
- Lab Mix Procedures
- Mix Designs
- Mix design trouble shooting

Mix Design Calculator Training

- Aggregate
- Air Entrainment
- Admixtures
- Cementitious Material
- Design Parameters
- Water Needed
- Lab Ratio
- Hidden Cells

The screenshot shows a detailed spreadsheet for a concrete batch design. It includes columns for material names, quantities, and various design parameters. Key sections include:

- PROPORTION PROPERTIES (PROCESSED):** Lists materials like Cement, Silica Fume, Metakem, and various sands with their respective quantities.
- PROPORTION PROPERTIES (RAW):** Lists materials like Water, Air, and LW Aggregate.
- PROPORTION PROPERTIES (TOTAL):** Provides a summary of the total batch weight and volume.
- TEST DATA:** Includes flow rate, run time per batch, and sample information.

Batch Design Program

Lab Mixing Procedures

Mixing samples in the lab has its own procedures and guidelines from onsite batching.

Training will include designing and mixing the design in the lab equipment and taking samples for break testing.

Most lab work will be conducted by the trainee with supervision for hands on experience

Hands on experience will always give greater understanding than just reading about it

Training procedures will include:

- Set up preparation
- Materials needed
- Measuring the ingredients
- Adding the materials in the correct order
- Taking samples and curing

Foam machine procedures & formulas

- Procedure for calculating volume output
- Procedure for calculating the foam density
- Procedure for setting chemical dilution ratio
- Procedure for machine start up



- How to repair a machine
- Parts for machine repairs
- Trouble shooting any machine
- On site quick assessment of foam machine output requirements

Compression Testing Training

State of the art testing equipment and curing incubator allow us to teach break testing procedures with real world results

Understanding and participating in compression break testing will increase your knowledge of exactly how cellular concrete behaves under stress



Foaming the truck



Lab training and class time can only teach so much. That is why we also teach using real equipment in the real world working environment to finalize training

Real world experience foaming a mixer truck is included in the training

The course consist of 3 -6 hour sessions over 3 days, includes lunch.

Travel & accommodations to Miami are not included



Miami

**18505 SW 104th Avenue
Ste 25 &26
Miami, Florida 33157**

Schedule Training Today

**Toll free 877-828-1954
Local 305-915-2107
Mobile 949-573-0509**

During the past 10 years, Cellular Concrete Technologies, using Stable Air technology has achieved a revolutionary breakthrough in the design and manufacture of light-weight cellular concrete through the combination of a specially developed surfactant, a proprietary foam-producing machine and a standardized mixing and handling protocol. Through a modified batch design, it is now possible to mix batches of concrete to accurately and reliably achieve pre-specified strengths and weights.



**Space age technology for an
age old industry**

Cellular Concrete Technologies

Cellular Concrete Technologies (CCT) will be exhibiting Stable Air®, a fully automated air entrainment system that far exceeds the capabilities of anything else on the global market. This revolution in lightweight concrete allows you to accurately predict, maintain, and control the air volume in every batch.

CCT's Stable Air® air-entrainment system has brought precision and predictability to the process of creating lightweight concrete.

With this patented technology,

CCT's Stable Air® air-entrainment system, transit, placement and finishing can be maintained within 2 percent.

CCT will highlight how you can combine our specially developed Stable Air® surfactant and proprietary foam machine to yield a wide range of cellular concrete types:

- structural lightweight concrete
- non-structural lightweight concrete,
- infill, backfill, and flow able fill.

CCT will be displaying a range of foam machines – each designed to meet specific industry needs.

Laboratory technicians and application experts will be on hand for training

CCT will be performing demonstrations of the Stable Air® Custom Cost-Savings Calculator a custom, user-friendly computer program that allows you to tailor and analyse your use of materials and identify cost savings opportunities.

This “green” technology makes eco-friendly construction both easy and affordable.