



Geofoam Liquid Concentrate<sup>®</sup> (Cellular Concrete Solutions)

[www.thiessenteam.com](http://www.thiessenteam.com)

## Thiessen Cellular Concrete

Thiessen Team makes the task of adding long-lasting load reduction quick and easy with **Thiessen Cellular Concrete** low density cellular concrete-an effective combination of our proven foaming agent and cement slurry. **Thiessen Cellular Concrete** reduces soil loading while increasing compressive and shear strength. It is an engineered geotechnical material containing uniformly distributed air voids. In its rigid form, it can be thought of as concrete having air as the aggregate. Its density can be varied from 20 to 120 lb/cu feet and its compressive strength from 20 to 3000 psi.

**Thiessen Cellular Concrete** can be used for replacement of unstable soils, density controlled load relief, void fills, behind retaining walls and similar Geotechnical applications. When used with the various types of foam generators, the result is a very compact, self-contained precision foam system which may be integrated with solids metering feeders, slurry mixers and pumps to permit continuous discharge of foamed slurries through pipe or hose lines.

### Features & Benefits:

- Lightweight
- Insulating; excellent freeze-thaw resistance
- High slump (virtually self-leveling); positive fill
- Rapid installation; can be placed by pump or gravity
- Long lasting & stable
- Load reducing engineered fill; replacement for unstable soils
- Absorbs shock waves
- Broad range of densities and compressive strengths
- Low water absorption and low permeability
- Reduces hydrostatic pressure on retaining walls

*Elko, Nevada, USA*  
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### **Thiessen Cellular Concrete Applications:**

- Backfill (Annular Grout) for Tunnels, Water & Sewer Lines
- Tunnel Arch Backfills
- Tunnel Backfill & Annular Fills
- Soil Stabilization
- Fill Underground Tanks & Pipelines
- Fill for Abandoned Mines
- Mine Closures
- Tremie Applications
- Bridge Approach & Landslip Repair Fills
- Impact Absorption
- Retaining Wall Backfills

### **Performance Characteristics:**

Aeration of aqueous suspensions of solids may be achieved either by blending a preformed foam with the cementitious slurry, or by adding a small amount of **Thiessen Cellular Concrete** directly to the slurry and then entraining air by high speed mixing.

The preformed method generally provides better control of final product density and requires less foam liquid. Preformed foam is made in calibrated foam generating devices which control both the rate of production and the proportion of air and solution in the foam.

Stabilization of cellular structure in the slurry is accomplished by stiffening or gelation due to either a hydration reaction of part of the solids with water, by polymerization of other additives in the slurry or by some other reaction which sets the foamed slurry to a solid.

No harmful effect to the **Thiessen Cellular Concrete** is sustained by exposure to temperature extremes. It is completely stable to repeated freeze-thaw cycles and is readily restored to its original fluid condition by storing for a short period at ambient working temperatures.

**Thiessen Cellular Concrete** complies with the standard specifications of ASTM C 869 when tested in accordance with ASTM C 796.

<sup>®</sup> is a registered trademark of Cellular Concrete Solutions

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