

GEOFOAM™ application guide



Tunnel Applications

Annular Fill

Back Filling



**CELLULAR
CONCRETE™
LLC**

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- Economical
- Easily Pumped
- Very Fluid Gravity Flow
- Low Density
- High Slump
- Positive Fill
- Light Weight
- Unique Designs for Compressive Strengths & Densities
- Ideal for Fault Zones
- Specified by the U.S. Bureau of Reclamation
- Environmentally Safe
- Non Hazardous
- Non Polluting
- Rapid Installation
- Non-Corrosive
- Reduced Loads
- Requires Less Bulkheading

GEOFOAM™ Cellular Concrete

GEOFOAM™ is lightweight cellular concrete, which is manufactured at the job site or purchased from your local ready mix supplier. GEOFOAM is manufactured by mixing a portland cement slurry (with or without fine aggregates) and preformed foam produced from GEOFOAM™ liquid concentrate processed through a Cellular Concrete_{LLC} Foam Generator.

GEOFOAM Cellular Concrete is installed by factory-trained contractors who have the specialized equipment and skilled personnel and can deliver specification required performance.

CELLULAR CONCRETE 'S 45 years of experience in cellular concrete technology is backed by our highly qualified professionals and our extensive manufacturing and field support team.

GUIDE SPECIFICATION:

GEOFOAM LOW DENSITY CELLULAR CONCRETE FILL

1: SCOPE OF WORK:

The GEOFOAM trained contractor shall furnish labor, materials, equipment and supervision for the installation of GEOFOAM Cellular Concrete in accordance with the drawings and specifications.

2: MATERIALS:

2.1 GEOFOAM Liquid Concentrate shall be supplied by CELLULAR CONCRETE LLC. GEOFOAM Liquid Concentrate shall comply with the standard specifications of ASTM C869 when tested in accordance with ASTM C-796.

2.2 Portland cement shall comply with ASTM C-150, C-150 Type I, II, or III .

2.3 Mixing water shall be potable and free from deleterious amounts of acids, alkali, salts, oils and organic materials which would adversely affect the setting time or strength of the GEOFOAM Cellular Concrete.

2.4 Admixtures for reducing water, accelerating set, etc. may be used when specifically approved by CELLULAR CONCRETE LLC and used in accordance with the admixture manufacturer's recommendations.

3: MIX DESIGN:

Mix Design shall be in accordance with CELLULAR CONCRETE LLC's recommendations for a cast density at point of placement of _____ pounds/ cubic foot (pcf) plus or minus _____ pcf with a minimum compressive strength of _____ pounds/square inch (psi) at 28 days.

4: MIXING AND PLACING GEOFOAM:

Shall be jobsite batched or delivered from a factory trained Ready-Mix concrete company. GEOFOAM Cellular Concrete shall be batched, mixed and placed with foam generator, mixer and pump system approved by Cellular Concrete.

5: TESTING:

Four (4) specimens shall be taken at the point of placement for each 100 cubic yards of GEOFOAM Cellular Concrete. Specimens shall be prepared, handled, stored, cured and weighed to determine density. Specimens should be tested for compressive strength in accordance with ASTM C495.

6: SPECIAL CONSIDERATIONS:

Contact CELLULAR CONCRETE ALLENTOWN, PA (610) 398-7833 for design assistance, application and placement recommendations.

GEOFOAM LOW DENSITY CELLULAR CONCRETE ANNULAR FILL TYPICAL PHYSICAL PROPERTIES

CLASS	DENSITY (AS CAST)		DENSITY (AIR DRY)		COMPRESSIVE STRENGTH (MINIMUM)		MINIMUM BEARING CAPACITY (TONS/sq.ft.)
	± 3 pcf	± 50 kg/m ³	± 3 pcf	± 50 kg/m ³	psi	Mpa	
I	21	335	17	270	20	0.13	1.4
II	27	435	22	350	40	0.27	2.9
III	33	530	27	430	80	0.55	5.8
IV	39	625	33	530	120	0.87	8.6
V	45	720	38	610	160	1.10	11.5
VI	48 & over	770 & over	41 & over	660 & over	300	2.07	21.6



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