

PROJECT NAME:

PROJECT NO:

# MAXFLOW FOAMING AGENT AND MAXFLOW CELLULAR CONCRETE FILL

## PRODUCT DATA SHEET

### 1. PRODUCT NAME(s)

MaxFlow Foaming Agent Concentrate and MaxFlow Cellular Concrete Fill

### 2. MANUFACTURER

MaxFlow Environmental Corporation  
775 US Hwy 70 West  
Black Mountain, NC 28711  
(828) 669-4875  
(828) 669-4874 Fax  
[www.maxflow.com](http://www.maxflow.com)



### 3. PRODUCT DESCRIPTION

Basic Use: MaxFlow Foaming Agent Concentrate is produced by MaxFlow Environmental Corporation and distributed to manufacturer approved contractors for use in producing MaxFlow Cellular Concrete Fill. MaxFlow Concentrate shall be diluted with water in accordance with the manufacturers specifications and charged into an approved generating device. This equipment is specifically configured to output a stable aerosol additive for concrete. The aerosol is introduced by volume to pre-proportioned cementitious mixtures during the mixing process which thereupon becomes MaxFlow Cellular Concrete. Using manufacturer approved batching equipment, MaxFlow Cellular Concrete may be mixed, pumped and then cast-in-place as a site produced low density fill.

Composition: MaxFlow Foaming Agent Concentrate is a surface active, polymer stabilized compound specifically designed to provide a uniformed colloidal aerosol network for use in fluid cementitious systems.

Dilution: MaxFlow Foaming Agent Concentrate shall be diluted with water for use. A dilution ratio of (1) part MaxFlow Concentrate to (40) parts of potable water is specified.

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Packaging: MaxFlow Foaming Agent Concentrate is packaged in (5) gallon [18.93 L] pails, (55) gallon [208.23 L] drums or (275) gallon [1041.15 L] bulk containers. All containers shall be clearly identifiable by manufacturers product labeling.

Applicable Standards: The following ASTM procedures are typically used to determine various properties of these products:

**ASTM C 796** "Testing Foaming Agents Used in Producing Cellular Concrete Using Preformed Foam."

**ASTM C 513** "Standard Test Method for Securing, Preparing, Obtaining and Testing Specimens from Hardened Lightweight Insulating Concrete for Compressive Strength."

**ASTM C 495** "Standard Test Method for Compressive Strength of Lightweight Insulating Concrete."

**ASTM C 869** "Standard Specification for Foaming Agents Used in Making Preformed Foam for Cellular Concrete"

References:

**ACI 229R-99** "Controlled Low Strength Materials", Chapter 8 "LD-CLSM using Preformed Foam"

#### 4. TECHNICAL DATA for MAXFLOW CELLULAR CONCRETE FILL

Cast and In-service Properties:

Range Class	Cast Density (lbs/ft <sup>3</sup> )	Air Dry Density (lbs/ft <sup>3</sup> )	Minimum Compressive Strength (psi)	Bearing Capacity (2000 lbs/ft <sup>2</sup> )
I	18 - 24	14 - 20	20	1.4
II	24 - 30	20 - 26	50	3.6
III	30 - 36	26 - 32	80	5.8
IV	36 - 42	32 - 38	140	10.1
V	42 - 50	38 - 44	200	14.4
VI	50 - 80	44 - 70	350	25.2

Note: As with all concrete mix designs, actual test should be conducted using the available component materials to verify all predicted theoretical physical properties. The cementitious product used to contemplate the physical properties shown in the table above is Type I Portland Cement.

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**5. SAMPLE MAXFLOW CELLULAR CONCRETE FILL MIX DESIGN**

<b>MAXFLOW CELLULAR CONCRETE MIX DESIGN</b>			
<b>COMPONENT</b>	<b>BY WEIGHT</b>	<b>BY VOLUME</b>	<b>BY UNIT</b>
<b><i>CEMENT</i></b>	<b>558 lbs</b>	<b>2.85 ft<sup>3</sup></b>	<b>5.94 SACKS</b>
<b><i>WATER</i></b>	<b>234 lbs</b>	<b>3.76 ft<sup>3</sup></b>	<b>28 gal</b>
<b><i>PREFORMED FOAM</i></b>	<b>71 lbs</b>	<b>20.39 ft<sup>3</sup></b>	<b>3.5 lbs/ft<sup>3</sup></b>
<b><u>TOTALS</u></b>	<b>863 lbs</b>	<b>27 ft<sup>3</sup></b>	<b>32.0 lbs/ft<sup>3</sup></b>

**THEORETICAL COMPRESSIVE STRENGTH = 140 psi ( .97 mPa)  
W/C RATIO = .42 USING TYPE I PORTLAND CEMENT  
ESTIMATED OVEN DRY DENSITY = 22-26 lbs/ft<sup>3</sup>**

<b>MAXFLOW CELLULAR CONCRETE MIX DESIGN</b>			
<b>COMPONENT</b>	<b>BY WEIGHT</b>	<b>BY VOLUME</b>	<b>BY UNIT</b>
<b><i>CEMENT</i></b>	<b>637lbs</b>	<b>3.25 ft<sup>3</sup></b>	<b>6.78 SACKS</b>
<b><i>WATER</i></b>	<b>268 lbs</b>	<b>4.29 ft<sup>3</sup></b>	<b>32 gal</b>
<b><i>PREFORMED FOAM</i></b>	<b>68 lbs</b>	<b>19.46 ft<sup>3</sup></b>	<b>3.5 lbs/ft<sup>3</sup></b>
<b><u>TOTALS</u></b>	<b>973 lbs</b>	<b>27 ft<sup>3</sup></b>	<b>36 lbs/ft<sup>3</sup></b>

**THEORETICAL COMPRESSIVE STRENGTH = 175 psi ( 1.21 mPa)  
W/C RATIO = .42 USING TYPE I PORTLAND CEMENT  
ESTIMATED OVEN DRY DENSITY = 26-28 lbs/ft<sup>3</sup>**

Note: As with all concrete mix designs, actual test should be conducted using the available component materials to verify all predicted theoretical physical properties. The cementitious product used to contemplate the physical properties shown in the table above is Type I Portland Cement.

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## **5. PRODUCT AVAILABILITY**

MaxFlow Foaming Agent Concentrate is produced by MaxFlow Environmental Corporation and distributed only to manufacturer approved contractor for use in producing MaxFlow Cellular Concrete Fill. Unauthorized use of the MaxFlow product is strictly prohibited. MaxFlow Foaming Agent Concentrate may not be resold or distributed unless written permission is obtained from MaxFlow Environmental Corporation.

Footnote: This MaxFlow Product Data Sheet (11/97) supersedes all previous subject documents. This document may be reproduced locally by MaxFlow Approved Contractors. This information is intended for use by MaxFlow Approved Contractors along with Specification and Design Professionals considering use of the MaxFlow Product(s).

**- END OF SECTION-**