



# SPECIFICATIONS

## MEARL GEOFOAM PERVIOUS™ Pervious Cellular Lightweight Concrete (PCLWC)

### 1. GENERAL

#### 1.1 DESCRIPTION

##### 1.1.1 Work Included

(A) This work shall consist of batching, mixing, and placing Mearl Geofoam PCLWC of the appropriate density as indicated by the specifications or as directed by the engineer. A trained Mearl Geofoam applicator shall furnish labor, material, equipment, and supervision for the installation of the Mearl Geofoam PCLWC in accordance with the drawings and specifications.

#### 1.2 QUALITY ASSURANCE

1.2.1 Use skilled labor that is thoroughly trained, experienced, and familiar with the specified requirements and the methods for proper performance of this work.

1.2.2 The Mearl Geofoam PCLWC applicator shall be approved in writing by CELLULAR CONCRETE SOLUTIONS.

#### 1.3 SUBMITTALS

1.3.1 The prime contractor shall list the product and qualified applicator of the PCLWC and shall not employ any product without the prior approval of the engineer.

1.3.2 Product data: within 30 calendar days after award of the contract, the prime contractor shall submit for approval by the engineer.

(A) Manufacturer's specifications and other engineering data needed to demonstrate to the issuing authority compliance with the specified requirements.

### 2 PRODUCTS

#### 2.1 MATERIALS

2.1.1 Foam Liquid Concentrate: Mearl Geofoam Pervious shall be supplied by CELLULAR CONCRETE SOLUTIONS and shall comply with the standard specifications of ASTM C 869 when tested in accordance with ASTM C-796.

2.1.2 Cement: the Portland cement shall comply with ASTM C150. Other cementitious materials may be used when approved by the project engineer.

2.1.3 Admixtures: admixtures for accelerating, water reducing, and other specific properties may be used when specifically approved by the project engineer.

2.1.4 Water: use water that is potable and free from deleterious amounts of alkali, acid and organic materials, which would adversely affect the setting or strength of the Geofoam PCLWC.

2.1.5 Expansion Material: Mearl Geofoam Pervious manufactured by CELLULAR CONCRETE SOLUTIONS.

#### 2.2 PROPERTIES

2.2.1 The Mearl Geofoam PCLWC shall meet the following properties:

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Cast Density, pcf	25-30
Maximum Compressive Strength, psi	80-140
Coefficient of Permeability, cm/sec	$1.0E^{-1} - 1.0 E^{-3}$
Oil Retention, percentage	$\leq 97$

### 3 EXECUTION

#### 3.1 SUBGRADE CONDITION

- 3.1.1 Examine the areas and conditions under which work of this section will be performed. Correct conditions detrimental to timely and proper completion of the work. Do not proceed until satisfactory conditions are established.
- 3.1.2 The area to be filled shall not have any standing water in it prior to placement of Mearl Geofoam PCLWC.
- 3.1.3 Any items to be encased in Mearl Geofoam PCLWC shall be properly set and stable prior to the installation.

#### 3.2 WEATHER CONDITION

- 3.2.1 Avoid freezing before initial set of Mearl Geofoam PCLWC.
- 3.2.2 Do not place at temperatures lower than 32 degrees Fahrenheit or when freezing conditions are expected in less than 24 hours.
- 3.2.3 If these conditions cannot be met, consult Cellular Concrete Solutions and determine precautions necessary to assure acceptable installation.

#### 3.3 MIXING AND CONVEYING

- 3.3.1 Use only the approved job site proportioning, mixing, and placing equipment recommended by CELLULAR CONCRETE SOLUTIONS.
- 3.3.2 Mix the materials according to the mix design and convey promptly to the location of final placement.
- 3.3.3 Avoid excessive handling of the Mearl Geofoam PCLWC.
- 3.3.4 Place Mearl Geofoam PCLWC in lifts not to exceed 60 inches in depth, unless otherwise recommended by CELLULAR CONCRETE SOLUTIONS.
- 3.3.5 The final surface finish shall be within  $\pm 0.1$  feet of the plan elevation.
- 3.3.6 Backfill or other unusual loadings on the Mearl Geofoam PCLWC shall not be permitted until the Geofoam™ PCLWC has attained a compressive strength of at least 20psi.

### 4 TESTING

#### 4.1 WET DENSITY

- 4.1.1 During placement, check the density and adjust the mix as required to obtain the specified cast density at the point of placement.
- 4.1.2 Four (4) specimens shall be taken for each 100 cubic yards of Mearl Geofoam PCLWC. Compressive strength testing shall comply with the standard specifications of ASTM C 495.

### 5 MEASUREMENT AND PAYMENT

#### 5.1 MEASUREMENT

- 5.1.1 Lightweight Low Density Cellular Concrete shall be measured on a volume basis.

#### 5.2 PAYMENT

- 5.2.1 Payment for Mearl Geofoam PCLWC shall be made at contract unit prices for quantities determined as specified above.