

# MEARL GEOFOAM<sup>®</sup>

## Pervious

### *Pervious Cellular Concrete*

#### **Features & Benefits:**

- Environmentally safe
- Has no flash point
- Supports sustainable development



#### **Mearl Geofoam Pervious Applications:**

- Sports Fields & Golf Courses
- Self-leveling fill
- Drainage structures
- Scour protection
- Sports fields & golf courses
- Tunnel backfill
- Underground tanks and pipe lines
- Soil stabilization
- Permeable road base
- Foundation drains
- Gabion retaining systems
- Annular backfill
- Load-reducing, engineered fill over underground structures
- Water retention
- Pipeline beds
- Greenhouse floors
- Fill for abandoned mines
- Impact absorption
- Bridge approaches and landslip repair fills

Use of cellular lightweight concrete continues to increase worldwide. New products from Cellular Concrete Solutions<sup>®</sup> are helping to drive this powerful trend, including the introduction of **Mearl Geofoam Pervious<sup>®</sup>**, a synthetic foaming agent for producing pervious cellular lightweight concrete, which helps developers, specifiers, and project owners to economically meet the goals and demands of sustainable, effective land use.

**Mearl Geofoam Pervious** produces an engineered, permeable, open-cell lightweight concrete, able to stabilize soil without disturbing or redirecting natural water flow. **Mearl Geofoam Pervious** cellular lightweight concrete provides proven geotechnical solutions for applications requiring drainage capacities exceeding those obtainable from compacted soil or controlled low strength material (CLSM).

Mix design determines the strength and density of **Mearl Geofoam Pervious** cellular lightweight concrete. Engineered cement slurry mixes can range from 50 to 200 psi, with wet cast densities from 20 to 30 pcf. **Mearl Geofoam Pervious** is very durable, allowing the use of bottom ash in the mix design, which supports sustainable development objectives and may increase the number of points awarded to a building in the LEED system. The use of sand or other aggregates in the mix may reduce the permeability. Mixes containing aggregate have not exhibited acceptable results. Thus, the use of sand or other aggregate in **Mearl Geofoam Pervious** cellular lightweight concrete mixes is not recommended. When site conditions or project schedules require faster set times, set accelerating admixtures, *if approved by Cellular Concrete Solutions*, can be incorporated into the mix.

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#### **Environmental Performance Advantages**

Testing by Middle Tennessee State University documents the ability of **Mearl Geofoam Pervious** cellular lightweight concrete to enhance the environment by filtering contaminants that can adversely affect soil and water. Various chemicals and solids were placed on **Mearl Geofoam Pervious** cellular lightweight concrete and then rinsed with increasing amounts of water (0.5 inches to 30.0 inches) over a given surface area. Test results showed **Mearl Geofoam Pervious** cellular lightweight concrete filtered 78% of the hydrocarbons and heavy metals. When the **Mearl Geofoam Pervious** cellular lightweight concrete was tested for oil retention, 97% of the oil remained on the pervious cellular lightweight concrete test specimen.

#### **LEED Credits**

Using **Mearl Geofoam Pervious** cellular lightweight concrete can help increase the number of points awarded to a building in the LEED system. By allowing water to soak through and infiltrate, **Mearl Geofoam Pervious** cellular lightweight concrete helps reduce stormwater flow and site pollutant loads, which may contribute to LEED Credit SS 6. By helping to integrate paving and drainage, less site area may need to be used to manage stormwater, allowing a more compact site development footprint, which may contribute to LEED Credit SS 5. When incorporating fly ash in the mix design, **Mearl Geofoam Pervious** cellular lightweight concrete substitutes partially for cement, which may contribute to LEED Credit M 4.

*Non Pervious Mearl Geofoam<sup>®</sup> also available*



#### **CELLULAR CONCRETE SOLUTIONS<sup>®</sup>**

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DS102-0510