




GEOFOAM® vs. LIGHTWEIGHT CELLULAR CONCRETE

COMPARISON FOR LARGE-VOLUME PROJECTS

When performance, schedule, and long-term value matter, Geofoam® engineered EPS delivers significant advantages over Lightweight Cellular Concrete for large-volume projects.



FEATURE / CRITERIA	GEOFOAM® (EPS)	LIGHTWEIGHT CELLULAR CONCRETE (LCC)
 UNIT WEIGHT	Very low unit weight (0.7 – 2.85 pcf) Up to 50x lighter	Significantly higher unit weight (20 – 120 pcf typical) Much heavier load on subgrade and structures
 INSTALLATION SPEED	Fast and efficient Large blocks placed quickly with crane or excavator	Slower process Requires pumping, placement, and curing time
 SCHEDULE IMPACT	Immediate construction Build on it immediately No cure time required	Requires curing and strength gain Delays subsequent construction and extends project schedule
 WEATHER SENSITIVITY	Minimal weather impact Can be installed in most weather conditions	Highly sensitive to weather Rain, freezing, and temperature affect placement and strength
 QUALITY CONTROL	Factory-manufactured Consistent density, strength, and performance	Field-mixed material Variations in mix, moisture, density, and strength
 LATERAL PRESSURE	Very low lateral earth pressure Reduces loads on walls, abutments, and structures	Higher lateral pressure More load on retaining walls and structures
 SETTLEMENT PERFORMANCE	Excellent Low load = minimal settlement Ideal for soft or compressible soils	Moderate Higher load = greater settlement risk on soft soils
 CONSTRUCTION IMPACT	Lightweight, easy to cut and shape No heavy equipment for compaction Cleaner, safer jobsite	Requires pumping equipment Wet process, more labor, and site management
 COST CONSIDERATIONS	Lower total installed cost Reduced equipment, labor, and schedule costs	Higher total installed cost Increased labor, equipment, and extended schedule
 SUSTAINABILITY	100% recyclable EPS Removable and reusable Lower environmental impact	Non-recyclable hardened material Permanent fill with higher carbon footprint
 FUTURE MODIFICATIONS	Easy to excavate, cut, and modify for future utilities or structures	Difficult to modify Becomes hardened mass; hard to excavate
 TRANSPORTATION	Extremely lightweight More material per truck Lower trucking weights	Heavier material by volume More truck traffic and delivery coordination

WHERE GEOFOAM® EXCELS

- ✓ Soft or compressible soils
- ✓ Bridge approaches and abutments
- ✓ MSE retaining walls
- ✓ Large embankments
- ✓ Utilities and culvert backfill
- ✓ Projects with tight schedules

THE BOTTOM LINE



Geofoam® engineered EPS provides unmatched lightweight performance, installation efficiency, and long-term value for large-volume projects.

Lighter. Faster. Smarter.
That's the Geofoam® Advantage.

WHERE LCC MAY BE CONSIDERED

Lightweight Cellular Concrete may be considered in applications requiring:

- Flowable fill for complex voids
- Tight utility corridors
- Irregular or intricate geometries
- Fire-resistant fill
- Situations where a self-leveling material is preferred

Values shown are typical and may vary based on specific product, density, mix design, and project conditions. Consult project engineer and supplier for detailed design and specifications.