



GLASS MOUNTAIN

LIGHTWEIGHT AGGREGATE

A true 110 pound
per cubic foot
natural lightweight
concrete is now
available to the
construction
industry, through
Glass Mountain.



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Lite-Rock™

Glass Mountain Lightweight Aggregate is currently supplying Lite-Rock™ lightweight concrete aggregate to the western United States from our mine and processing plant in Tulelake, California, approximately 60 miles southeast of Klamath Falls, Oregon, and from our Power Inn rail unloading center on the south side of Sacramento, California.

This successful use of Glass Mountain Lite-Rock™ in structural lightweight concrete has been repeatedly substantiated by engineering tests and satisfactory placements. Lite-Rock™ aggregate surpasses the conditions of acceptance for ASTM C-330 “Lightweight aggregates for Structural Concrete” as tested by Kleinfelder, Inc. and ASTM E-119 “Fire Tests of Building Construction and Materials” as tested by Omega Point Laboratories. This natural material provides a true 110 pcf lightweight structural concrete for the construction industry.

Glass Mountain Lite-Rock™ has been approved for use by many government agencies, including the California State Fire Marshal, the City of Los Angeles Dept. of Building and Safety, and Cal Trans of California. Many public projects, including schools, hospitals, and prisons have utilized Lite-Rock™ in fire-rated structural roof and floor assemblies and in lightweight tilt-up panel construction. This material has also been used by Cal Trans and other customers for lightweight fill material for several projects throughout Oakland and the San Francisco Bay Area.

LIGHTWEIGHT CONCRETE SPECIFICATION

ASTM C-330 (“Specification for Lightweight Aggregates for Structural Concrete”) or the equivalent UBC 26-3 is considered to be the standard specification for the course aggregate in structural lightweight concrete. Supporting information can be found in ACI 213R (“Guide for Structural Lightweight Aggregate Concrete”). Both of these publications indicate there are a number of sources of natural lightweight aggregates such as pumice, scoria, and cinders capable of meeting the specifications for structural lightweight concrete. Glass Mountain aggregates have proven time and time again to be superior to other natural lightweight aggregates.

GLASS MOUNTAIN LITE-ROCK™ IN STRUCTURAL LIGHTWEIGHT CONCRETE

Glass Mountain Lite-Rock™ is a superior quality natural lightweight aggregate, which surpasses all of the general specification requirements for structural lightweight Concrete as defined by ASTM C-330 (UBC 26-3) "Lightweight Aggregates for Structural Concrete."

- **Lightweight and High Strength:** Capable of producing concrete utilizing standard mix designs with 28 day Compressive Strengths in the range of 3,000 to 5,000 psi at Air Dry Unit Weights of 110 to 112 pcf.
- **Fire-Rating Certification:** Successfully meets the conditions of acceptance outlined in ASTM E119 for a Fire Endurance Rating of two to four hours in structural floor and roof assemblies depending on thickness. Tests indicate concrete made with Lite-Rock™ transmits less than half as much heat as normal weight concrete of similar thickness.
- **Recognized Quality:** Approved for use in structural lightweight concrete by many government agencies, including the City of Los Angeles. Cal Trans has approved this material for both lightweight concrete and fill material.
- **Quality Control:** Consistent Unit Weights, Gradation, Specific Gravity, and Saturation ensure proper mix proportioning, pumpability, and workability.
- **Proven Performance Through Testing:** Repeated testing by nationally recognized laboratories has proven Glass Mountain Lite-Rock™ meets ASTM specifications for Gradation, Drying Shrinkage, Splitting Tensile Strength, Organic Impurities, Staining, Loss on Ignition, Clay Lumps, Popouts, and Durability.
- **High Silica Content:** Chemical analyses indicate a silica value greater than nearly all other pumices on a worldwide basis. This high silica content imparts exceptional hardness resulting in cubical aggregate particles, which offer excellent bonding to the matrix.
- **Unique Cellular Nature:** Abundant Microscopic spaces lead to a slow release of moisture with time, thereby extending the chemical reactions which yield stronger concrete. Additionally, this physical property results in an exceptional thermal insulation factor. This cellular nature has also proven to provide enhanced air entrainment properties providing a higher level of natural entrapped air. This can eliminate the need for air-entrained admixtures.
- **Color Neutral:** Uniformly off-white in color but is receptive to colorant.

SPECIFY GLASS MOUNTAIN LITE-ROCK™ IN YOUR MIX DESIGN