Johnson Concrete Products   
Lightweight Gray Masonry Units

Division 4: Section 4200 Part

Part 1 – General

1. Concrete masonry units shall be of modular dimension; shall be of uniform appearance and shall be delivered to the project site in an air-dried condition. Units shall be manufactured with Stalite expanded slate lightweight aggregate or other approved rotary kiln expanded shale, clay or slate lightweight aggregate conforming to ASTM C331 and C330 specifications.
   1. LEED PROJECTS: As directed by the Architect. Units shall be manufactured and raw materials harvested within the 500 mile job site radius.
2. Lightweight Concrete Masonry Units: Concrete masonry units shall comply with referenced standards as follows:
   1. Size: Standard units with nominal face dimensions of 8 inches high x 16 inches long and nominal depths as indicated on the drawings for specific locations.
   2. Special Shapes: Provide non-standard blocks configured for corners, lintels and other detailed conditions.
   3. Load-Bearing Units**:** ASTM C90 latest edition. Units shall not exceed 105 pcf dry densities as determined in ASTM C140.
   4. Per the request of the Architect, a random sample of the concrete masonry units may be taken from the job site to be tested for compliance with specifications.
3. Concrete Masonry Units
   1. All units shall be free of organic impurities that cause rusting, staining or pop outs and shall contain NO combustible matter. The use of coal ash aggregate, bottom ash, cinders or similar waste products SHALL NOT be allowed. Fly ash complying with ASTM C618 may be used as a supplementary cementious material at the manufacturer’s discretion.
   2. All 8 inch deep or larger units shall meet ACI 216.1 requirements for a two hour or greater fire rating.
   3. Aggregates: Stalite or other approved rotary kiln expanded shale clay or slate lightweight aggregate conforming to ASTM C331 and C330 specifications.
   4. Certification: The producer of the lightweight concrete masonry units shall furnish a letter of certification stating:
      1. All lightweight aggregate used in the manufacture of the units was Stalite or other approved rotary kiln expanded shale, clay or slate lightweight aggregate conforming to ASTM C331 and C330 specifications.
      2. ASTM C90 certification
      3. ACI 216 fire rating calculations
   5. Concrete Brick: ASTM C55
      1. Cored or solid
      2. Size: As indicated on drawings
4. Part 2 – REFERENCES

* ACI 216.1/TMS 0216.1 – Standard Method for Determining Fire Resistance of   
  Concrete and Masonry Construction Assemblies
* ACI 530/ASCE 5/TMS 402 – Building Code Requirements for Masonry Structures
* ACI 530.1/ASCE6/TMS 602 – Specification for Masonry Structures
* ASTM C55 – Standard Specification for Concrete Brick
* ASTM C90 – Standard Specification for Loadbearing Concrete Masonry Units
* ASTM C128 – Standard Test Method for Density, Relative Density (Specific Gravity),   
  and Absorption of Fine Aggregate
* ASTM C140 – Standard Test Methods of Sampling and Testing Concrete Masonry Units   
  and Related Units
* ASTM C330 – Standard Specification for Lightweight Aggregates for Structural Concrete
* ASTM C331 – Standard Specification for Lightweight Aggregates for Concrete Masonry Units