

SOUNDBLOX[®] Specifications

Suggested Specification: Provide SOUNDBLOX[®] Acoustical Concrete Masonry Units (ACMU's) each with two slot type apertures to produce absorption and diffusion. SOUNDBLOX[®] units shall conform to ASTM C90 and have two factory-installed noise attenuating fibrous fillers with laminated metal septum.

04200 Unit Masonry

-220 Concrete Unit Masonry

Sound Absorbing Concrete Unit Masonry

Scope: SOUNDBLOX[®] units shall be used to construct exterior and interior walls or partitions as shown on the plans and/or indicated in the Schedule of Finishes.

Materials: All SOUNDBLOX[®] units shall be made on standard block machines using molds furnished or approved by The Proudfoot Company. They shall be made of carefully prepared aggregate and shall meet the current ASTM C-90 or ASTM C-129 requirements as appropriate. Carefully controlled use of the molds shall be employed so all units have one end of the cavities tightly closed. Slots and edges shall be straight and clean. Where units with metal inserts or fibrous or laminated fillers are called for, filler elements as supplied by the The Proudfoot Company shall be installed in the cavities of the blocks at the block plant. The filler shall be of specially fabricated incombustible fibrous material, cut accurately to size and installed as recommended. The fillers shall have metal septa laminated to one side of the fibrous material and shall be installed with the septa facing away from the slots. Where units with bare metal septa are called for, the bare (without fibrous material) metal septa shall be fabricated of 28 gauge, galvanized steel, furnished by the Proudfoot Company and installed in each cavity in the recommended manner at the block plant.

Sizes and Types: SOUNDBLOX[®] units shall be 8"x16" nominal face size. Type A-1 units without fibrous fillers or steel septa shall be available in 4", 6", and 8" thickness only and shall be available in left and right hand units for vertical re-enforcement. Type RSC units of 4" and 6" depth are to have three sequential sound absorbing cavities and two flared slots. Type RSC units of 8" and 12" depth are to have three or four sequential cavities and two flared slots. Type RSR units with fluted face shells or type Q units with galvanized steel septa shall be available in 8" thickness only. SOUNDBLOX[®] type Q units with galvanized steel septa shall be available in left or right hand units for vertical re-enforcement. SOUNDBLOX[®]X type RSC units with fibrous fillers and laminated metal septa shall be available in 4", 6", 8", and 12" thickness with 8" and 12" units also available in left and right hand units. SOUNDBLOX[®] type RSC/RF re-enforceable units shall be available in 8", 10" and 12" thickness.

Installation: SOUNDBLOX units shall be kept dry and installed by the General Contractor or Masonry Contractor using only mechanics skilled in the laying of masonry blocks. All necessary cutting on the job site shall be performed with power tools in such a manner as to provide straight and true edges. No chipped or broken blocks shall be used. Acoustical masonry shall be laid in running or stack bond with **the open ends of the cavities facing downward** and shall be seated in a full horizontal bed of mortar. The slots shall be exposed to the area where the sound absorption is desired as indicated on the plans. Care shall be taken to ensure that the slots are kept free of mortar or debris above the mortar joint. Lines shall be straight and true and the workmanship shall otherwise conform to all requirements of the General Specifications for masonry work.

For situations requiring a full core for vertical reinforcement, SOUNDBLOX units with open cavities on either left or right hand sides are to be used. In conjunction with standard SOUNDBLOX units, reinforcing bars and grout are to be incorporated to produce a full core reinforcement

Painting: SOUNDBLOX units may be spray painted without significant reduction of sound absorption from the values shown, which were determined after the faces had already been painted. Lightweight acoustical masonry units have substantially more sound absorption when unpainted but, except for split- rib units, few are ever left unpainted. Walls of acoustical masonry units made of lightweight porous aggregates must be heavily painted with cement base or other sealing type paint on the non-slotted side to prevent porous sound transmission where maximum sound transmission loss is desired. Such painting is also required on ordinary hollow concrete masonry units of lightweight, porous aggregates to prevent porous sound transmission.