

SOUNDBLOX® Specification

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Provide SOUNDBLOX® Acoustical Concrete Masonry Units (ACMU's) each with two slot type apertures to produce absorption and diffusion (CSA A165-Series, Type H/15/C/M). SOUNDBLOX® units shall conform to ASTM C90 and have two site-installed noise attenuating fibrous fillers with laminated metal septum.

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 **Western Noise Control (2015) Ltd. (1-800-661-7241 or www.acousticsolutions.com)**. 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 laminated fillers are called for, filler elements are supplied by Western Noise Control (2015) Ltd. and shall be installed in the cavities of the blocks just before construction of the wall at the job site. The fillers shall have metal septa laminated to one side of the fibrous material and shall be installed with the metal septa facing away from the slots so the fibrous material is seen from the outside of the SOUNDBLOX®.

Sizes and Types

SOUNDBLOX® units shall be 19 cm x 39 cm nominal face size. Type RSC units of 15 cm (14 cm actual) depth are to have three sequential sound absorbing cavities and two flared slots. Type RSCF units of 20 cm (19 cm actual), 25 cm (24 cm actual), and 30 cm (29 cm actual) depth are to have three or four sequential cavities and two flared slots. Type RSC/RSCF units with fibrous fillers and laminated metal septa shall be available in 15 cm (14 cm actual), 20 cm (19 cm actual), 25 cm (24 cm actual), and 30 cm (29 cm actual) depth.

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.

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.