





## Double Steel Stud Wall with Acoustiblok: Acoustical data



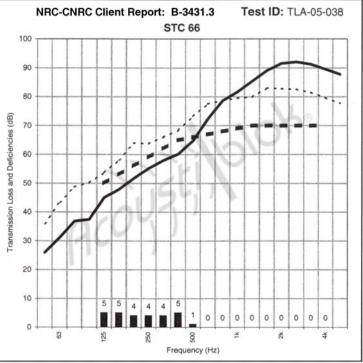
SOUND TRANSMISSION CLASS is a single number that represents the sound blocking capacity of a partition such as a wall or ceiling.

STC numbers are often called out in architectural specifications, to assure that partititions will reduce noise levels. For performance similar to laboratory test numbers, it is necessary to adhere closely to the construction materials and techniques used in the tested partition.

STC is calculated by comparing the actual sound loss measured when 18 test frequencies pass through a partition, with fixed values for each STC level. The highest STC curve that the measured sound loss numbers fit under, determines the STC rating of the tested partition.

The National Research Council Canada rated this wall assembly with a remarkable STC of 66. (See report graph below.)

The tested assembly: 5/8" gypsum board with caulked seams installed with drywall screws 24" o/c, 1-1/2" x 3-1/2" steel studs spaced 24" o/c, 1 layer of 16 Oz. Acoustiblok under drywall both sides. Stud rows spaced for 2-1/2" air gap, and 6" fiberglass batts installed as shown. Total wall thickness is 11".



STC calculations emphasize sound frequencies that match the human voice. A high STC partition will block the sound of human speech, and block noise that interferes with human speech. A high STC number may not indicate a partition that is effective in blocking very low or very high pitched sound. STC measures sound blocking for airborne noise source only; it does not indicate how well a partition can block impact noise (objects striking the far side of the wall), or directly transmitted noise such as machinery mounted on the far side of the wall.

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