

HEBEL AAC (Autoclaved Aerated Concrete) produces remarkable sound insulation and absorption quality. AAC absorbs much more sound than conventional concrete and other materials, effectively reducing sound wave transmission. This makes it ideal for construction projects that require a high level of acoustic insulation, such as schools, apartments, hotels, and entertainment facilities.

Assembly	STC	Report No.
Hebel Wall 6" Block AAC-2 Unfinished	44	AS- TL958AX
Hebel Wall 8" Block AAC-2 Unfinished	47	AS- TL959AX
Hebel Wall 8" Block AAC-4 Unfinished	50	AS- TL1026AX
Hebel Wall 10" Block AAC-2 Unfinished	50	AS- TL978AX
Hebel Double Wall AAC-4 Unfinished - (Block wall 5", airspace 4", No fill)	60	AS- TL962AX
Hebel Double Wall AAC-4 Unfinished - (Block wall 5", airspace 4", Mineral wool 2.5#)	65	AS- TL962BX
Hebel Double Wall AAC-4 Unfinished - (Block wall 5", airspace 4", Mineral wool 4#)	68	AS- TL962CX
Hebel Wall 8" Block AAC-3 Unfinished	46	AS- TL957AX
Hebel Wall 10" Block AAC-3 Unfinished	49	AS- TL977AX

**Notes:** Testing performed Acoustic Systems, Inc., 415 East St. Elmo Rd., Austin, TX in accordance with ASTM E90 "Standard Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions". **STC:** Sound Transmission Class

Sound (or noise) is measured in decibels. The method of calculating noise levels has been simplified. If you subtract the STC rating from the existing noise level, then that is the level at which you would hear sound transmitted through a wall. AAC walls reduce the transmission of sound from one side of the wall to the other as the density of the AAC increases. Therefore an AAC-4 (higher density) has a better STC rating than an AAC-2 (lower density). Increasing the thickness of an AAC wall will also help increase the STC rating. Providing a double wythe wall, or applying other finishes like stucco or insulation board, also helps to increase the STC rating of the wall. AAC walls have STC ratings that range from approximately 44 to over 68 for a double wythe wall.

### NRC rating

The Noise Reduction Coefficient is a value of how much noise, generated in a given space or room, is absorbed by the walls, floors and ceilings. A material with an irregular surface has a better ability to absorb or diffuse sound. A surface that is rather slick or painted will reflect sound back into the room. An unpainted AAC wall surface has an average NRC tested at 1000HZ of 0.15 as compared to cast-in-place concrete, which has an NRC of 0.02. When painted, the same AAC wall will have an NRC of approximately 0.05, an almost 60% reduction, because the paint reflects sound back into the room space.