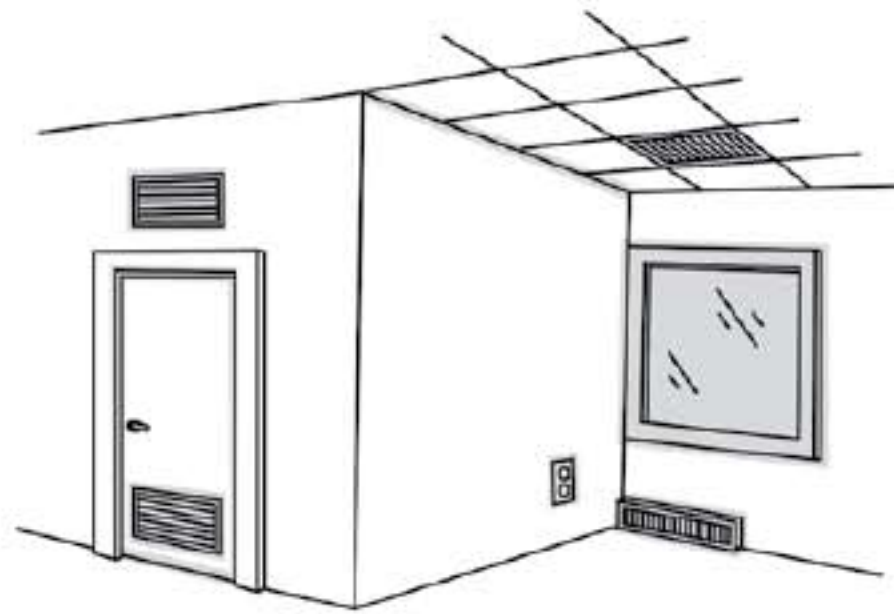


## Sound Flanking

Flanking is the leakage of airborne sound around a door opening through any available gap. Flanking between the door leaf and the surrounding frame is reduced by the use of seals.

Optimum sound attenuation performance is likely achieved using a four sided frame with a sill made to the same detail as the head and the seals set in a single plane. If a full four sided frame is not an option, then alternative threshold sealing options should be made such as automatic door bottoms, door shoes and/or thresholds.



Active STC Rating	Level Of Speech Heard
STC-30	Loud speech understood
STC-35	Loud speech heard but not understood
STC-40	Loud speech audible as a murmur
STC-45	Some loud speech barely audible
STC-48	Hearing strained to hear loud speech
STC-50	Loud speech not audible

## STC Ratings

Acoustic Door Testing is done on "sealed-in-place" (fully caulked) doors for door STC ratings, as well as on assemblies (with gasketing and door bottoms) for operable STC ratings. Operable STC ratings are always equal to or lower than the sealed-in-place ratings. The best performance rating on the operable test is a 'zero drop' in the assembly's STC rating. For example, a door with a STC 45 rating can only achieve an operable STC of 45 at its very best; it can never achieve a STC 50.

Also, since sound waves travel the path of least resistance, a high performing door will not compensate for elements like improperly installed seals around doors, the lack of a threshold under the door, a non-insulated frame, louvered doors, or poor seals at the wall/ceiling/floor/mullion connections.

When STC ratings are determined, normal human speech and hearing are used. In most cases the level of reduction does not totally eliminate but rather muffles the sound to an unintelligible level. The chart shown on the left compares the level of speech that would be heard through a door system with the indicated operable STC rating.

Look for Pemko products with this symbol:



Tested To: ASTM E 90-2009

Products indicated by this symbol have been acoustically tested in accordance with ASTM E90 - Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements.

### Need STC Rated Doors?

Pemko Acoustic Seal Sets are an important part of an overall acoustic solution. ASSA ABLOY Group brands can provide the other elements of the solution including STC Rated Doors, STC Rated Frames and complete STC Rated Assemblies.

For more information please see:

WOOD DOORS: [www.assaabloywooddoors.com](http://www.assaabloywooddoors.com)  
 CECO DOOR: [www.cecodoor.com](http://www.cecodoor.com)  
 CURRIES: [www.curries.com](http://www.curries.com)