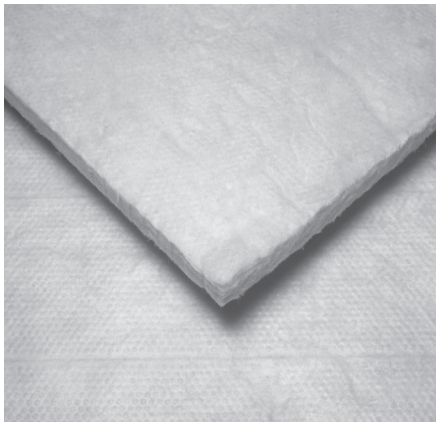
QuietZone® Sound Attenuation Batt Insulation

Product Data Sheet



Acoustic Comparison of Cavity Insulation Types

Gypsum Board	Insulation Type	Test Number	STC
One layer each side.			
5/8"	Glass fiber	TL-93-325	49
5/8"	Mineral fiber	TL-93-327	47
5/8"	Cellulose (spray)	TL-93-049	45
One layer one side, two layers the other side			
5/8"	Glass fiber	TL-92-420	52
5/8"	Mineral fiber	TL-93-329	53
5/8"	Cellulose (spray)	TL-93-050	49
5/8"	Cellulose (blown)	TL-92-437	49

3 5/8" 25 Gauge Non Load Bearing Studs at 16" on center
NRC-CNRC Internal Report IRC-IR-693, October 1995

Available Sizes

Thickness	Width	Length
2½"	16"/24" (406mm/609mm)	96"
2½"	16" (406mm)	108"
3½"	16"/24" (406mm/609mm)	96"
3½"	16" (406mm)	108"
5½"	16" (406mm)	93"

Description

QuietZone® Sound Attenuation Batts (SAB's) are unfaced, lightweight, flexible fiberglass insulation batts, designed to deliver noise control in metal stud wall cavities of interior partitions. Manufactured to fit metal framing, they come in 2½", 3½" and 5½" thicknesses, with lengths up to 9'.

Product Attributes

Excellent Acoustical Performance

QuietZone® Sound Attenuation Batts provide excellent acoustical performance for metal framed interior partitions. Depending on the construction method and components used, SAB's can improve STC (Sound Transmission Class) ratings by 4-10 points over an empty cavity

Easy to Install and Fabricate

QuietZone® Sound Attenuation Batts are 1/8" wider than stud spacing for easy friction-fit installation. No adhesives or fasteners are required. Supplementary support should be provided when the SAB's do not fill the cavity or if one side of the cavity is left open and the partition is 8' or higher. SAB's are easily cut to fit around wires, outlets, junction boxes, pipes and other obstructions. Friction fit installation and easy fabrication, improves installation speed and workmanship. Acoustic performance of a wall assembly can be affected by workmanship and attention to detail while constructing a wall. Data on acoustic performance of specific wall assemblies is available on page 2.

Reality of Sound Transmission Coefficient (STC).

STC is a method of rating airborne sound transmission performance of a wall or floor assembly. It is intended as a quick screening tool to compare different wall or floor assemblies. STC ratings are determined in a laboratory under controlled conditions. Even then, differences of 1-2 points STC can occur for the same assembly in the same laboratory. In the field, flanking noise, quality of material and construction practices can lead to widely varied STC's for the same assembly. Typically a two (2) or more point change in STC is necessary to notice an audible difference.

Product Comparison

Independent ASTM E90-1990 testing was used to determine Sound Transmission Class in accordance with ASTM E413 for several types of building insulation. All the testing was done at the same lab, using the same individually tested components, to give the most reproducible results. The results show that insulating the cavity is critical to acoustic performance. It also shows that the type of insulation does not significantly affect the performance of the assembly.

Design Considerations

Acoustical performance of metal stud interior partitions can be substantially affected by a number of important design and construction details. Important details include:

1. Seal the bottom plate and any wall penetrations with non-hardening permanently resilient sealant.

2. Location and attachment of outlets, ducts and mechanical equipment. Plumbing should be designed to allow for expansion and contraction. Pipes should also be isolated from structure using resilient mounts.

3. Use solid core wood or metal doors for best noise control. Depending on HVAC requirements, weather-stripping may be used around the door to reduce sound transmission.

Fire Safety

QuietZone® Sound Attenuation Batts are considered non-combustible and have are classified 10/10 when tested in accordance with ASTM E84. When installed in approved wall systems, SAB's can achieve up to a 2 hour rating when tested according to ASTM E119.

Special

Due to the potential for skin irritation QuietZone® Sound Attenuation Batts should not be used in open cavities that will be subject to human contact. If specifying for an open cavity, remember to use supplemental support for heights over 8'.

Product should be kept dry during shipping, storage and installation.

Applicable Standards

QuietZone® Sound Attenuation Batt Insulation complies with ASTM C665 Type I, ASTM E 136 and the MEA 332-83-m requirements of New York City. Federal Specification HH-I-521F has been canceled and is replaced by ASTM C665.

Surface Burning Characteristics/Building Code Construction Classification

Products	Flame Spread	Smoke Developed	ICBO	BOCA	SBCCI	ICC
Unfaced	10	10	All Types	All Types	All Types	All Types

Sound Attenuation Batt Insulation complies with ICBO (Uniform Building Code), BOCA (National Building Code) and SBCCI (Standard Building Code) and ICC (International Building Code) model code requirements for building costruction types listed above.. *Products are tested in accordance with ASTM E84

Water Absorption	
Maximum by Volume	Less than 0.05%

Dimensional Stability	
Linear Shrinkage	Less than 0.1%

*Products are tested in accordance with: Surface Burning Characteristics - ASTM E 84.

Acoustic and Fire Ratings for Typical Steel Stud Partitions

STC	Test No.	Construction Description	Fire Test	Fire Rating
Double Layer Wall System				
56	W02184	½" Type "X" gypsum; 3 5/8" SS, 3 ½" thick, QuietZone® Sound Attenuation Batt Insulation	WP 1521†	2 Hr.
54	W03084	½" Type "X" gypsum; 2 ½" SS, 2 ½" thick, QuietZone® Sound Attenuation Batt Insulation	WP 1546	2 Hr.
Unbalanced Wall System (2 layer/1 layer gypsum)				
55	W02484	Unbalanced 5/8" Type "X" gypsum; 3 5/8" SS, 3 ½" thick, QuietZone® Sound Attenuation Batt Insulation	WP 1052	1 Hr.
52	W02884	Unbalanced 5/8" Type "X" gypsum; 2 ½" SS, 2 ½" thick, QuietZone® Sound Attenuation Batt Insulation	UL U494	1 Hr.*
Unbalanced with Resilient Channel Wall System				
58	RAL-TL90-345	5/8" Type "X" gypsum single layer, resilient channel, one side; double layer other side; 3 5/8" SS, 3 ½" thick, QuietZone® Sound Attenuation Batt Insulation	UL U465	1 Hr.*
Single Layer Wall System				
50	RAL-TL89-157	Single Layer 5/8" Type "X" gypsum; 3 5/8" SS, 3 ½" thick, QuietZone® Sound Attenuation Batt Insulation	UL U465	1 Hr.
47	W05182	Single Layer 5/8" Type "X" gypsum; 2 ½" SS, 2 ½" thick, QuietZone® Sound Attenuation Batt Insulation	UL U494	1 Hr.
Single Layer with Resilient Channel Wall System				
54	RAL-TL90-344	Single layer, resilient channel, one side only; 5/8" Type "X" gypsum; 3 5/8" SS, 3 ½" thick, QuietZone® Sound Attenuation Batt Insulation	UL U465	1 Hr.*

†Listed in the Gypsum Association "Fire Resistance Design Manual"
Key: SS = Steel Stud WS = Wood Stud

OWENS CORNING
INNOVATIONS FOR LIVING™

OWENS CORNING INSULATING SYSTEMS, LLC
ONE OWENS CORNING PARKWAY
TOLEDO, OHIO, USA 43659

1-800-GET-PINK™
www.owenscorning.com

Pub. No. 18141-L. Printed in U.S.A. March 2007.