OWENS CORNING®
INNOVATIONS FOR LIVING™

QuietZone®
Acoustic Batts

Product Data Sheet

Owens Corning *QuietZone* acoustic batts are an essential part of controlling noise transmission between rooms. The *QuietZone* acoustic batt actually absorbs sound vibrations within the wall cavity to control noise in the home.

QuietZone acoustic batts help reduce noise transmission coming from laundry rooms, entertainment rooms, family rooms and any other area where noise is created. It can also be used to create privacy in home offices, master bedrooms or other areas where peace and quiet is desired.

Excellent Acoustical Performance

QuietZone acoustic batts provide excellent in-place acoustical performance. Depending on the construction method used, *QuietZone* acoustic batts can improve Sound Transmission Class ratings by 4 to 10 dBs. Installation advantages can help a contractor achieve the acoustical performance desired. The STC performance data for various wall constructions can be found on pages 3 and 4.

Durable Composition

QuietZone acoustic batts:

- Are dimensionally stable.
- Will not slump over time.
- Are composed of inorganic glass fibers which do not absorb water.
- Maintain original acoustic properties over time.
- Will not rot or mildew.

Product Benefits:

- Differentiate the homes you build with increased performance.
- Increase sales by offering unique up-sell options.
- Provide homeowners with quieter, more peaceful living conditions.
- Enhance your image by positioning yourself as an acoustic solutions expert.
- Save homeowners time and money by suggesting noise control prior to new home construction compared to retrofitting at a later date.

Product Attributes

QuietZone acoustic batts are:

- Acoustically engineered to absorb sound vibrations.
- Installed between interior walls, floors, and ceilings when constructed of standard wood framing members.
- Lightweight and pre-cut to 93" or 105" lengths for quick installation and easy transportation.
- Faced batts are easily identified by attractive, PINK-kraft facing featuring large images of the PINK PANTHER™.
- Easily stapled and cleanly fabricated to allow for improved workmanship and acoustical performance.
- Compliant with building codes and standards.

Product Installation

QuietZone acoustic batts are designed for interior cavities only and are not recommended for exterior walls. The facing on this product is provided for ease of installation and is not a vapor retarder.

- Insulation must fit snugly into place, filling the cavity completely.
- Staple batts along kraft flanges to the inside of the wall framing.
- In cases where wall penetrations apply, cut with a utility knife to fit around wiring, outlets, junction boxes, pipes and other obstructions.
- For desired performance, keep batts dry during shipping, storage and installation.
- *QuietZone* acoustic batts may be installed with the facing toward either side of interior walls, floors, or ceilings in conventional wood stud construction.

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- *QuietZone* acoustic batts (15" or 23" width) will be required in the cavity space between wall framing sections spaced either 16" or 24" o.c.
- Owens Corning *QuietZone* acoustic batts will be required to fill the cavity space between wall framing sections spaced either 16" or 24" o.c. when using 2x6 *QuietZone* acoustic wall framing.

Technical Data

Wood Frame Construction

Width		Length		Thickness		Pieces Per Package	Sq. Ft./m²	Linear Ft./m
Faced Batts								
15"	381mm	93"	2362mm	3½"	89mm	16	155/14.40	124/37.8
15"	381mm	105"	2664mm	3½"	89mm	16	175/16.26	140/42.7
15½"	394mm	93"	2362mm	5½"	139mm	10	101/9.38	78/23.8
23"	584mm	93"	2362mm	3½"	89mm	16	238/22.11	124/37.8
15"	381mm	105"	2664mm	3½"	89mm	1 (Roll)	88/8.18	70/21.3
Unfaced Batts								
15¼"	387mm	93"	2362mm	3½"	89mm	16	155/14.40	124/37.8
15 ¼"	387mm	105"	2664mm	3½"	89mm	16	178/16.54	140/42.7
23 ¼"	591mm	93"	2362mm	3½"	89mm	16	241/22.39	124/37.8

QuietZone acoustic batts comply with the requirements of the Uniform Building Code (ICBO) building types III, IV, and V; National Building Code (BOCAI) building types 3, 4, and 5; and Standard Building Code (SBCCI) building types III, V, VI.

Dimensional Stability	
Linear Shrinkage	Less than 0.1%

Water Absorption	
Max. by Volume	Less than 0.05%

Product Applications

QuietZone Quiet Foundations™ Noise Control System

Using single 2x4 wood studs (16" o.c.), *QuietZone* acoustic batts, and ½" Type X gypsum board provides basic noise control between adjoining rooms. *QuietZone* acoustic batts can improve conventional wood stud walls to a Sound Transmission Class (STC) rating of 39.

QuietZone Quiet Retreats™ Studs, Batts, Caulk and Mat

Using *QuietZone* acoustic framing on 24" centers, 2x6 *QuietZone* acoustic wall studs, double layers 5⁄8" Type X gypsum drywall each side, 5½ *QuietZone* acoustic batts. In this assembly wall performance improves to an STC rating of 63.

Technical Design Considerations

Acoustical performance of interior drywall partitions can be substantially improved by including a number of important design and construction details.

Important details include sealing the perimeter of walls, wall intersection construction details, and the location and proper installation of electrical outlets, ducts, doors and mechanical equipment.

Perimeter Sealing

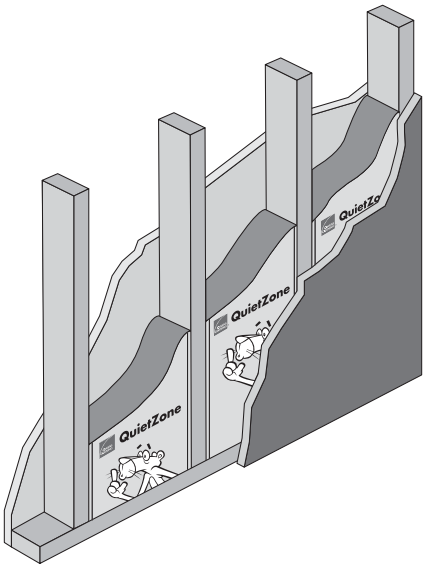
Seal walls on both sides at top and bottom plates with a non-hardening, permanently resilient caulking such as a butyl rubber-base compound. Where required, two layers of wallboard, properly staggered, joint compound and tape will effectively seal corners.

Doors

Where optimum acoustical control is desired, solid wood core doors or insulated metal doors should be specified. Door tops and sides should be gasketed with a soft weather stripping. Use of threshold closures at the bottom of the door or air seals will reduce sound transmission.

Figure 1

Single wood studs, *QuietZone* acoustic batt insulation and a single layer of ½" Type X gypsum board.



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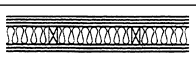
Single Wood Stud Wall System

STC	STC Test No.	Construction Description		Fire Rating	Fire Test
36	OCF423	Single wood studs 16" o.c.; single layer 5/8" type "x" gypsum drywall each side; one thickness, 3½" thick *QuietZone* Acoustic Batts		1 Hr.	UL U305
39	W2069	Single wood studs 16" o.c.; single layer ½" type "x" gypsum drywall each side; one thickness, 3½" thick *QuietZone* Acoustic Batts		N.A.	—
40	W2469	Single wood studs 16" o.c.; double layer ½" type "x" gypsum drywall one side, single layer other side; one thickness, 3½" thick *QuietZone* Acoustic Batts		N.A.	—
45	W2569	Single wood studs 16" o.c.; double layer ½" type "x" gypsum drywall each side; one thickness, 3½" thick *QuietZone* Acoustic Batts		1 Hr.[1]	UL U305

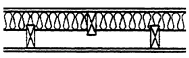
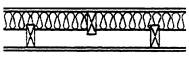
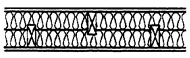
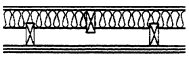
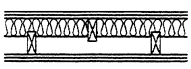
[1]Rating is estimated from tests using thinner assemblies of fewer layers of gypsum drywall. Specific test references are available and will be provided upon request.

Single Wood Stud with Resilient Channel Wall System

STC	STC Test No.	Construction Description		Fire Rating	Fire Test
46	W0769	Single wood studs, resilient channel; single layer ½" type "x" gypsum drywall each side; one thickness. 3½" thick *QuietZone* Acoustic Batts		N.A.	—
50	WP3230[2]	Single wood studs, resilient channel; single layer 5/8" type "x" gypsum drywall each side; one thickness, 3½" thick *QuietZone* Acoustic Batts		1 Hr.	OSU T-3127
52	W0669	Single wood studs, resilient channel; single layer ½" type "x" gypsum drywall one side, double layer other side; one thickness, 3½" thick *QuietZone* Acoustic Batts		N.A.	—
56	W0569	Single wood studs, resilient channel; double layer ½" type "x" gypsum drywall each side; one thickness, 3½" thick *QuietZone* Acoustic Batts		1 Hr.[1]	OSU T-3127

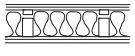
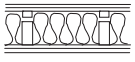
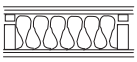
[1]Rating is estimated from tests using thinner assemblies of fewer layers of gypsum drywall. Specific test references are available and will be provided upon request.
[2]Listed in the Gyspum Association *Fire Resistance Design Manual*

Staggered Wood Stud Wall System

STC	STC Test No.	Construction Description		Fire Rating	Fire Test
46	W5769	Staggered wood studs 16" o.c.; single layer 5/8" type "x" gypsum drywall each side; one thickness, 3½" thick *QuietZone* Acoustic Batts		1 hr.[1]	UL U305
51	W01486	Staggered wood studs 16" o.c.; single layer ½" type "x" gypsum drywall each side; one thickness, 3½" thick *QuietZone* Acoustic Batts		N.A.	—
51	OC5FC	Staggered wood studs 16" o.c.; single layer ½" type "x" gypsum drywall each side; two thicknesses, 3½" thick *QuietZone* Acoustic Batts		1 hr.	OSU 4970
53	W4769	Staggered wood studs 24" o.c.; double layer ½" type "x" gypsum drywall one side, single layer other side; one thickness, 3½" thick *QuietZone* Acoustic Batts		N.A.	—
55	W4869	Staggered wood studs 24" o.c.; double layer ½" type "x" gypsum drywall each side; one thickness, 3½" thick *QuietZone* Acoustic Batts		1 hr.[1]	UL U309

[1]Rating is estimated from tests using thinner assemblies of fewer layers of gypsum drywall. Specific test references are available and will be provided upon request.

QuietZone Wall Framing System

STC	STC Test No.	Construction Description		Fire Rating	Fire Test
57	E90-99087	2x4 *QuietZone* Acoustic Framing on 16" centers, double layers ½" type "x" gypsum drywall each side, 3½" thick *QuietZone* Acoustic Batts		1 hr.[1]	UL U305
60	E90-01029	2x6 *QuietZone* Acoustic Framing on 16" centers, double layers 5/8" type "x" gypsum drywall each side; 5½" thick *QuietZone* Acoustic Batts		N.A.	—
63	E90-99102	2x6 *QuietZone* Acoustic Framing on 24" centers, double layers 5/8" type "x" gypsum drywall each side; 5½" thick *QuietZone* Acoustic Batts		1 hr.	OSU 4970

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Sliding doors should be avoided where optimum noise control is desired. Doors opening on hallways should not open across from one another.

Electrical

Light switches and outlets should not be located back-to-back. Ceiling fixtures should be surface mounted and openings around boxes should be sealed airtight.

Circuit breaker boxes, telephone outlets and intercom systems should be located on well-insulated interior walls and never on exterior, part or hallway walls.

Plumbing

Pipe runs should be designed with swing arms so expansion and contraction can occur without binding, thus eliminating unwanted water flow generated sound. Piping should also be isolated from surrounding structures with resilient mounts.

Installation of fixtures back-to-back should be avoided. In all cases, openings made in walls should be caulked or sealed to ensure optimum acoustical integrity.

Ducts and HVAC Equipment

Since ducts can easily transmit sound, duct design should be given special consideration when planning the heating and air conditioning system.

The installation of a quiet, high quality heating and air conditioning unit is recommended to reduce duct-carried noise. When possible, isolate equipment away from "quiet" areas.

Owens Corning offers a variety of duct systems, wraps and liners that effectively reduce noise.

Fire Safety

Kraft facing will burn. Do not leave exposed. Facing must be installed in substantial contact with an approved ceiling, floor or wall material. Keep open flame and other heat sources away from facing. Do not place insulation within 3" of light fixtures or similar electrical devices unless device is labeled for contact with insulation. Use only unfaced insulation between wood framing and masonry chimneys. Do not use insulation in spaces around metal chimneys, fireplaces, or flues. Unfaced insulation is considered non-combustible by model building codes. Flame Spread 25 products are flame spread rated and can be left exposed where codes allow. See package for warnings, fire hazard and installation instructions, or call 1-419-248-8234.

Applicable Standards

QuietZone acoustic batts comply with:

- ASTM C 665, Type II, Class C. Federal Specification HH-I-521F has been cancelled and is replaced by ASTM C 665.
- Uniform Building Code (ICBO) building types III, IV, and V
- National Building Code (BOCA) building types 3, 4, and 5
- Standard Building Code (SBCCI) building types III, V, and VI.

Always check with your local building code official regarding local requirements affecting installation of all building components.

Fiber Glass and Mold

As manufactured, fiber glass insulation is resistant to mold growth. However, mold growth can occur on building materials, including insulation, when it becomes contaminated with organic material and when water is present. To avoid mold growth on fiber glass insulation, remove any water that has accumulated and correct or repair the source of that water as soon as possible. Insulation that has become wet should be inspected for evidence of residual moisture and contamination, and any insulation that is contaminated should be promptly removed and replaced.

For more information on *QuietZone* acoustic batts or the *QuietZone* Noise Control System, call 1-800-GET-PINK or visit our Web site at: www.quietzone.com

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