

Soundproofing Home Theaters & Media Rooms

**Recording studios, rehearsal spaces, jam rooms,
professional production, editing & postproduction
suites**



Theater design & rendering: Keith Yates Design Group www.keithyates.com

The Goal

"I want a home theater that is my own private world – I don't want to disturb other people at home (or neighbors), and I don't want outside noise to disturb my movie-viewing pleasure."

The Problems

- Your family members or neighbors complain when you listen to movies and music at what you consider to be "normal theatrical levels" (outbound noise)
- You can hear street noise, or the upstairs/next door neighbors, etc) while in your home theater (inbound noise)
- You want all inside noise to disappear acoustically – the TV in the next room, family members talking, laughing, shouting, the garage door opener, the doorbell, junior's boom box, high heels walking on hardwood floor, toilet flushing.
- You want all outside noises to disappear acoustically - road traffic, jack hammers, airplanes, barking dogs, arguing neighbors, cars with oversize boom boxes, city buses, freight rains, garbage trucks.
- You want your audio systems to sound like it cost you 2x as much as it really did.
- You don't want to field any more complaints from the neighbors upstairs, downstairs or next door.
- You want to use standard construction techniques to keep cost and risk to a minimum.



This paper is organized to help you get a handle on these common problems and complaints. In five steps, you'll learn:

1. *What STC Rating Do I Want to Achieve?*
2. *Old Approaches & New Solutions*
3. *The Quiet Solution Home Theater*
4. *System*
5. *Methods to achieve the STC Rating You Want*
6. *How to Apply Quiet Solution Products*

1. What STC Rating Do I Want To Achieve?

The fundamental question you'll answer for yourself is "what STC rating do I want for my home theater, and how do I get it?" The decision begins with understanding STC Ratings.

STC (Sound Transmission Class) is the standard rating that describes the sound reduction of a wall or ceiling, and is universally used by architects, designers, manufacturers, contractors and distributors of acoustic building products. The higher the STC rating, the greater the sound reduction of the acoustic barrier.

STC is essentially the average dB loss through a barrier across a range of frequencies (from about 125Hz to 4000 Hz). An STC rating corresponds closely to the average difference, measured in dB, produced by a sound barrier material, between the sound in one area and the sound in an adjacent area. For example here are some common noises:

Subjective Impression	Typical Sounds	dB	STC needed to produce quiet
Very quiet	Breathing	10	
	Whispering	20	
Pleasantly quiet	Quiet library	30	
	Quiet home	40	0
Normal noise level	General office building interior	50	10
	Normal Conversation at 3'-5'	60	20
Loud noise level	Vacuum cleaner Bus idling	70	30
	Noisy office; typical factory interior Rail car Home theater, normal operation	80	40
	Male Scream at 6' Diesel locomotive Home theater, loud sequences	90	50
	Near a jackhammer Car going around curve squeal Locomotive horn Home theaters, full blast	100	60
Hearing loss if sustained	Rock concert speakers	110	70
	Near a jet engine	120	80
Pain threshold	Cannon explosion	140	100

Source: Charles M. Salter & Associates, *ACOUSTICS*, 1976

A quality home theater can produce sounds as loud as 100dB to 110dB. A typical “quiet room” is around 40dB. So to have a quiet room at 40dB adjacent to a loud home theater with a dB of 100, a wall would have to be rated with an STC of 60 ($100 - 40 = 60$).

Typical existing wall construction (the most common method is stud construction with drywall on either side) has an STC rating of 30 to 34. A room built with standard construction walls adjacent to the home theater would have sound levels at 70dB ($100 - 30 = 70$), which is too loud for conversation. However, with a wall built to an STC of 60, the adjacent room would have sound levels of 40dB, about as quiet as a library.

Based on a scenario of a your home theater emitting peaks of 100dB, the table below shows the Sound Transmission Class (STC) target values of partitions needed between the home theater and the adjoining rooms to keep everyone happy. Conversely, you can read the table as the STC needed to keep the Home Theatre occupants from hearing outside noises like jackhammers.

The three levels shown below are achievable targets. Each one dictates a different construction method, and hence budget. It’s perfectly reasonable to shoot for intermediate target STCs, such as 55-60. Achieving an STC of 70 is world class.

Home theater subjective evaluation	Target STC for home theater wall/ceiling/floor (in dB)	Achieves these results in adjacent Rooms (in dB)
Benchmark - no special soundproofing	34	66
Three Levels		
“Acceptable” soundproofing	45	55
“Very Good” soundproofing	55	45
“Superb” soundproofing	65	35

**Assumes home theater produces sounds of 100dBA and the adjacent room target is 30dBA*



In the next section, you’ll learn about conventional “old school” soundproofing approaches and about the new method (viscoelastic damping).

2. Old Approaches & New Solutions

There are two basic approaches to reducing noise: sound barriers and sound absorbers.

Sound barriers reduce sound transmission from one space to another. Traditional sound barriers follow Mass Law, which states that the heavier an object is, the more energy it takes to vibrate it. Eight inches of concrete is considered an excellent sound barrier. Other sound barriers include walls constructed with non-standard methods (staggered and double stud, resilient channels) that are expensive and prone to being ruined by faulty construction.

Surprisingly many people hold serious misconceptions about how to create a sound barrier.

Approach	Common misconception	Test results show...
Fill the wall with egg cartons	Will reduce noise by 10dB	No measurable effect
Put insulation in wall	Will fix everything	3-4dB reduction
Put mass loaded vinyl beneath drywall	Will reduce noise by 27dB	2-3dB reduction per layer (at 1 lb/ft ²)
Add another layer of drywall	Will stop the bass sounds	2dB reduction per layer
Use foam as a barrier	Regarded as a great barrier	Less than 3dB reduction
Use Homasote®*	Traditional method	3-4dB of reduction per layer

Sound absorbers reduce noise reflections (echoes or reverberations) within a space. Sound absorbers are usually some kind of foam, fabric or other “fuzzy stuff”. Sound absorbers reduce echo or reverberation in a room each time a sound wave hits it. Foam panels and fabrics, placed on walls and ceilings, are popular for this, as they are effective for reducing sound *within* a home theater. However, they rarely have much sound reduction *through* them, so they do not make good barriers. Sound absorbers in your home theater allow sound to be transmitted outside your room to adjacent rooms or even to your neighbors’ homes.

Quiet Solution Technology

Quiet Solution has developed a viscoelastic polymer for use in “constrained layer damping” to reduce noise transmission. Basically, the polymer isolates the face of the wall from the studs, as if you built a room-within-a-room (only at a molecular level). The viscoelastic polymer reduces the length and amount of vibration traveling across the barrier.

This new sound isolation technology exploits the viscoelastic properties of polymeric materials. Quiet Solution has formulated special compounds that are highly viscoelastic (both viscous and elastic or resilient). When deformed by sound wave pressure – kinetic

energy – the compound's internal resistance lengthens the time before the material returns to its normal shape. Within a range of temperatures and frequencies, viscoelastic polymers can reduce noise and vibration by 10–20dB per layer or more. Every 10dB of reduction is perceived as a reduction in volume of approximately 50%. If your home theater gets to peaks around 100dB (which is quite loud) then a 20dB reduction through a sound barrier becomes as loud as a telephone dial tone on the other side.

There are two types of viscoelastic materials. **Unconstrained layer damping** is the simplest way of introducing damping into a structure. The treatment consists of a layer of damping material bonded to the surface of the sound-generating source. The coating goes through tension/compression deformation, along with the bending of the metal, resulting in dissipation of energy. The material is low cost, typically 1mm thick, and low weight.

Constrained layer damping is among the most efficient ways of introducing damping into a home theater. This requires the viscoelastic material to be placed between two other rigid materials (such as plywood or drywall). It must also have adhesive qualities to bond directly to both layers and work effectively.

Materials such as concrete or gypsum board have a certain amount of sound barrier capability. This capability is mostly due to its mass (i.e. size and weight). But what about applications where it would be impractical to use high mass materials? In these situations, using constrained-layer damping rather than mass can yield excellent results. As you'll see below, a drywall or wood panel can achieve even higher STC Ratings than a mass-loaded wall – with less material, less weight and less bulk.

There are a variety of techniques to reduce noise and vibration in a home theater or media rooms. Most approaches rely on one of two principals: mass or viscoelasticity. Both methods can be effective, depending on how much material you are willing to use. The more the source can be treated, or isolated with airtight barriers treated with viscoelastic or mass-loaded techniques, the opportunity to meet your needs for quiet are enhanced.



In the next section, you'll learn about the most modern and effective method on the market to build a soundproof room – the Quiet Solution Home Theater System.

3. The Quiet Solution Home Theater System

Quiet Solution has assembled a line of products, which work in concert to give you an unparalleled home theater experience, while preserving the level of quiet in spaces adjacent to the home theater. The five products in the Home Theater System are designed to perform far better than traditional approaches, while remaining low cost, low weight, low bulk, and easy to install.



QuietRock™ - soundproof engineered panels for walls & ceilings



QuietWood™ - soundproof panels for sub-floors, exterior walls & booths



QuietSeal™ - soundproof acoustical sealant for joints & outlets



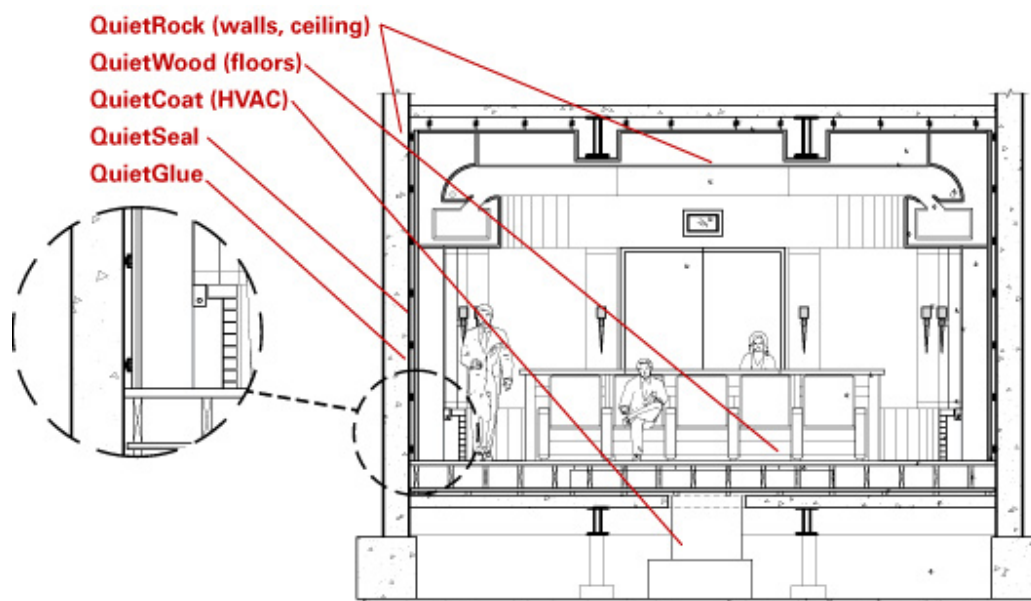
QuietGlue™ - soundproof polymer for applying drywall & wood to existing walls



QuietCoat™ 118 soundproof coating for HVAC ducts & steel studs

These five elements are used throughout a home theater in conjunction with one another to make up the Quiet Solution Home Theater System.

Using Quiet Solution Home Theater System Elements



A typical home theater installation using all five of the Quiet Solution Home Theater elements.

A. QuietRock for walls & ceilings

With the highest STC rating of any drywall product, the QuietRock product line significantly reduces noise and sound entering or exiting a room, using standard construction or over existing walls. QuietRock is a multi-layer acoustic isolation drywall product. It is ideal for use in either new construction or in renovation projects.

QuietRock QR-520 Relief is fabricated using our viscoelastic adhesive QuietGlue, and is available in a standard 4' x 8' panel (4' x 10' or 4' x 12' special order). It is ready to use and can replace standard drywall or be installed over existing drywall. Walls and ceilings can be easily constructed with STC ratings of 45–50 using QuietRock QR-520 Relief.

QuietRock QR-540 Solitude has all the features of QuietRock QR-520 Relief, but adds a proprietary barrier layer and a second layer of QuietGlue. Using QuietRock QR-540 Solitude, walls and ceilings can be easily constructed with finished STC ratings from 48–70+, depending on construction techniques.

B. QuietWood for floors & exterior walls

With the highest STC rating of any wood product, the QuietWood product line significantly reduces unwanted noise and sounds entering or exiting from the home's floors, exterior walls or from adjacent rooms. QuietWood is a multi-layer product, and is ideal for use in either existing or new construction.

QuietWood QW-620 Relief is fabricated using our QuietGlue viscoelastic adhesive, and is available in standard 4' x 8' panels. It is ready-to-use, and can replace standard plywood above ceilings, below floors or behind walls. Walls and floors can be easily constructed with final STC ratings of 45-60 using QuietWood QW-620 Relief.

QuietWood QW-640 Solitude has all the features of QuietWood QW-620 Relief, but adds a proprietary barrier layer and a second layer of QuietGlue. Using QuietWood QW-640

Solitude, walls and floors can be easily constructed with finished STC ratings from 50-70+, depending on construction techniques.

C. QuietSeal for seams & junction boxes

Sound, like water, will travel through any available opening, we have developed QuietSeal acoustical sealant to combat this common flaw in sound barriers. QuietSeal helps your home theater maintain high STC values when used in conjunction with QuietWood and QuietRock.

Use QuietSeal between panels, and to seal perimeter joints where the panels meet the floor and ceiling. Also use QuietSeal around electrical, cable, telephone and speaker outlet boxes. QuietSeal is easy to apply at normal working temperatures, and will adhere well to all clean surfaces without priming. QuietSeal is highly resilient and can therefore withstand movement normally encountered by partitions.

D. QuietCoat 118 for HVAC, steel studs & recessed lighting

Your sound system isn't the only source of noise in your home theater. QuietCoat is an unconstrained-layer damping product, meaning it can be applied to the exterior of nearly anything to minimize noise and vibration.

QuietCoat has a broad functional temperature range, which makes it perfect for use on HVAC ducts and lighting fixtures, where temperatures can reach extreme highs and lows. This product is designed to minimize the interference from these necessary building systems, while allowing you to enjoy the full, true sounds produced by your home theater system. QuietCoat is less expensive, easier to apply, more effective, thinner, and lighter than older sound and vibration damping technologies.

In new construction, using metal studs improves the acoustic damping provided by the wall frame itself. However, low frequency exterior noise can actually vibrate an entire wall. By applying QuietCoat to the steel studs, a few additional STC rating points can be achieved.

E. QuietGlue for walls, ceilings and floors

For use as an extra layer of sound damping between QuietRock and the studs in your walls or between QuietRock and your existing wall, or between your own ply/drywall for an economical homeowner.



In the next section, you'll learn about various construction methods to help you achieve the STC rating you want. This decision is the most important one you, your architect, designer or builder needs to make.

4. Methods to Achieve the STC Rating You Want

Wood Stud Summary

The table below summarizes the results you can expect from using the different construction techniques outlined above with wood studs. Select the one that most closely matches your goals and budget.

Summary of dB Loss Using Various Techniques Using Wood Studs

Construction Technique	STC	% Noise Reduction versus standard wall (perceived volume)
Over Existing Wall		
Standard Interior Wall with 5/8" drywall both sides with insulation (baseline)	34	0
Add QuietGlue + Drywall to 1-side	45	53%
Add QuietGlue + Drywall to 2-sides	47	59%
Add QuietGlue + QuietRock Relief to 1-side	48	62%
Add QuietGlue + QuietRock to 2-sides	53	73%
Add QuietGlue + QuietRock Solitude to 1-side	54	75%
Add QuietGlue + QuietRock Solitude to 2-sides	60	83%
New Construction (standard 2x4 16" OC wood frame with acoustic sealant and no insulation)		
Drywall + Frame + QuietGlue + QuietRock	46	56%
QuietRock + QuietGlue + Frame + QuietGlue + QuietRock	49	64%
Drywall + Frame + QuietGlue + QuietRock Solitude	48	62%
QuietRock Solitude + QuietGlue + Frame + QuietGlue + QuietRock Solitude	54	75%
New Construction (standard 2x4 16" OC wood frame with R-13 insulation and acoustic sealant)		
Drywall + Frame + QuietGlue + QuietRock	49	64%
QuietRock + QuietGlue + Frame + QuietGlue + QuietRock	51	69%
Drywall + Frame + QuietGlue + QuietRock Solitude	52	71%
QuietRock Solitude + QuietGlue + Frame + QuietGlue + QuietRock Solitude	58	81%
New Construction (staggered stud wood frame with R-13 insulation and acoustic sealant)		
Drywall + Frame + QuietGlue + QuietRock	50	67%
QuietRock + QuietGlue + Frame + QuietGlue + QuietRock	55	76%
Drywall + Frame + QuietGlue + QuietRock Solitude	57	79%
QuietRock Solitude + QuietGlue + Frame + QuietGlue + QuietRock Solitude	62	85%
New Construction (double stud wood frame with R-13 insulation and acoustic sealant)		
Drywall + Frame + QuietGlue + QuietRock	54	75%
QuietRock + QuietGlue + Frame + QuietGlue + QuietRock	59	82%
Drywall + Frame + QuietGlue + QuietRock Solitude	61	84%
QuietRock Solitude + QuietGlue + Frame + QuietGlue + QuietRock Solitude	66	89%
New Construction (double stud wood frame, R-13 insulation, acoustic sealant, Resilient Channel, Sound Clips)		
Drywall + Frame + channel/clips + QuietRock	62	85%
QuietRock + channel/clips + Frame + channel/clips + QuietRock	67	89%
Drywall + Frame + channel/clips + QuietRock Solitude	69	91%
QuietRock Solitude + channel/clips + Frame + channel/clips + QuietRock Solitude	72	93%

Source: Quiet Solution conducts continuous rigorous testing of its products using high-quality independent test labs that use industry-standard testing procedures and techniques. Some of the above combinations have been verified by Western Electro-Acoustical Labs (Santa Clarita, CA) using ASTM E-90 and E-413 specifications for STC testing. Copies of test reports are available separately.

Steel Stud Summary

If you have a choice, always go with steel stud construction (25 gauge, 24" on center, R-13 fiberglass batt). You can get an extra 6 STC rating points above wood stud construction (16" on center, no insulation).

The table below summarizes the results you can expect from using the different construction techniques outlined above with steel studs. Select the one that most closely matches your goals and budget.

Summary of dB Loss Using Various Techniques Using Steel Studs

Construction Technique	STC	% Noise Reduction (perceived volume)
Std Interior Wall - 5/8" drywall both sides + R13 on 3.5" steel studs (baseline)	45	0
New Construction (3.5" with 24" OC steel studs with R-13 insulation and acoustic sealant)		
Drywall + Frame + QuietGlue + QuietRock	53	42%
QuietRock + QuietGlue + Frame + QuietGlue + QuietRock	57	56%
Drywall + Frame + QuietGlue + QuietRock Solitude	56	53%
QuietRock Solitude + QuietGlue + Frame + QuietGlue + QuietRock Solitude	60	64%

Source: Standard interior wall on steel studs, STC data provided by National Research Council of Canada, Publication IRC-IR-761

Competitive Comparisons

In the past, older technologies utilizing fiberboard (such as Homasote®*) or vinyl barriers have been used to gain marginal improvement in STC values. It is important to note that STC values of materials do not add up. That is, adding a 27-STC-vinyl barrier to a wall that has an STC of 34 does *not* result in an STC of 61 (actually, it only raises the STC of the final assembly by 3-4dB, or 6dB if used on both sides of the wall). The table below summarizes the results you can expect from using various techniques.

STC Comparison

Construction Method - 2x4 wood studs, 16" OC, R13, with:	STC	
5/8" Drywall both sides	34	Note 4
Double 1/2" Drywall on both sides	38	Note 4
1lb Vinyl under 5/8" drywall both sides	40	Note 3
Resilient Channel 24" OC, 1/2" drywall	43	Note 4
Homasote [®] * under 5/8" drywall both sides	45	Note 1
QuietRock Solitude both sides	58	Note 5
Construction Method - 8" Cinder Block Wall	43	Note 2
Construction Method – 3.5" steel studs, 24" OC, R13, with:		
5/8" Drywall both sides	45	Note 4
Resilient Channel 24" OC, 1/2" drywall	49	Note 4
Homasote [®] * under 5/8" drywall both sides	51	Note 1
QuietRock Solitude both sides	62	Note 5

Note 1: STC data provided by Homasote[®]*, Note 2: STC data provided by Schundler Corp., Note 3: STC data provided by mass calculation, Note 4: STC data provided by National Research Council of Canada IRC-IR-761, Note 5: STC data provided by interpolation from independent lab testing at Western Electro Acoustic Labs



In the next section, you'll learn about various construction methods to help you achieve the STC rating you want. This decision is the most important one you need to make with your architect, designer or builder.

5. How to Apply Quiet Solution Products

A. QuietRock Panels

Using QuietRock in New Wall Construction

1. Choose your preferred construction method, such as standard 16" OC, staggered, or double frame. QuietRock works with wood and steel framing.
2. Just prior to attaching QuietRock to the studs, brush a layer of QuietGlue onto the outside edge of the studs. The glue will form a layer between the stud and the QuietRock, thus providing another viscoelastic sound and vibration barrier.
3. Attach QuietRock to the studs using #6 or #7 Bugle Head 2½" drywall screws. Use coarse thread for wood studs and fine thread for steel studs. Hold the panel in place until at least four screws are set.
4. Seal each seam between panels, at floor and ceiling, and around electrical boxes with QuietSeal. Be sure that the QuietSeal is set deep into the seams to enable normal applications of tape and texture. QuietSeal will remain viscoelastic, i.e. not dry.
5. Tape, texture, paint or wallpaper as normal.

Using QuietRock in Existing Wall Construction

QuietRock can also be used directly over existing drywall construction without removing the original drywall. Follow the instructions below for this application:

1. Just prior to attaching QuietRock to the studs, brush a layer of QuietGlue onto the outside edge of the studs. The glue will be form a layer between the old wall and the QuietRock, thus providing another viscoelastic sound and vibration barrier.
2. Attach QuietRock to the studs using #8 or #10 Bugle Head 3½" drywall screws (use coarse thread for wood studs and fine thread for steel studs). Hold the panel in place until at least four screws are set.
3. Seal each seam between panels, at floor and ceiling, and around electrical boxes with QuietSeal. Be sure that the QuietSeal is set deep into the seams to enable normal applications of tape and texture. QuietSeal remains viscoelastic by never fully drying. Although it will not drip or run, it remains soft to the touch.
4. Tape, texture, paint or wallpaper as normal.

Using QuietRock in Ceiling Construction

We recommend that you increase the number of screws by a factor of 2x when applying QuietRock to a ceiling. This accommodates the double thickness and additional weight.

Cure Time: QuietGlue requires 24 hours to dry, after which the full sound damping capability of your new wall or ceiling will be achieved.

B. QuietWood Panels

1. Choose your preferred construction method, such as standard 16" OC, staggered, or double frame. QuietWood works with wood and steel framing.
2. Just prior to attaching QuietWood to the studs, brush a layer of QuietGlue onto the outside edge of the studs. The glue will be form a layer between the stud and the QuietWood, thus providing another viscoelastic sound and vibration barrier.

3. Attach QuietWood to the studs using 2½" nails or strapping or fasteners as required for shear wall construction.
4. Seal each seam between panels, at floor and ceiling, and around electrical boxes with QuietSeal. Be sure that the QuietSeal is set deep into the seams to enable normal applications of tape and texture. QuietSeal will remain viscoelastic, i.e. not dry.
5. Finish with stucco or drywall as normal.

C. QuietSeal Tubes

QuietSeal extrudes easily at normal working temperatures by hand or power gun and will adhere well to all clean concrete, gypsum, plaster, steel, wood and aluminum surfaces without priming. It is of the consistency of clay and designed to preserve the designed STC values. QuietSeal is highly resilient and can therefore withstand any amount of movement normally encountered in partitions. Be sure that the QuietSeal is set deep into the seams to enable normal applications of tape and texture. QuietSeal will remain viscoelastic, i.e. not dry.

D. QuietCoat 118

You can apply QuietCoat using brush, roller or spray. They are equally effective. Damping ability of the material is un-affected by application method. The goal is to apply one or more coats that accumulate to 1-3mm.

Drying & Curing Time: Being water based, QuietCoat needs to dry by evaporation during the cure cycle. QuietCoat that has been thinned excessively will take longer to dry. Water will evaporate more readily when the following conditions exist: higher temperature, increased air circulation, lowered relative humidity. These conditions along with layer thickness contribute to drying time. Thicker layers require longer drying times.

Application of second or successive coats require the previous one to be dry, therefore the goal normally will be to apply as much QuietCoat as possible in each coat keeping in mind the effect on drying time.

Typically, apply the first coat and wait four hours for it to become tack-free. Then, apply a second coat if you wish, and wait four hours for it to become tack-free. Then, if you wish, you may apply a third coat. *Thicker coverage and more coverage greatly enhance the noise and vibration absorption properties.*

Development Time: After QuietCoat is applied, it will take up to one week to develop fully and obtain its maximum noise absorption properties. While you can use the treated surface a few hours after the last coat, the vibration absorbing properties will continue to get better for up to one week after the final coat is applied.

QuietCoat is water based and can be treated the same as any water-based latex paint. Keep a bucket of warm soapy water handy. If you mistakenly brush, roller or spray material where you don't want it, just wipe it off. It takes QuietCoat at least 20 minutes to get tacky, but the quicker you wipe it off the better.

E. QuietGlue

The materials QuietGlue is used with include drywall, plywood, metal, various woods. As long as at least one of the materials is porous, QuietGlue can be used, typically adding 15 to 20dB of sound isolation.

1. Make sure the wood/drywall or other surfaces are clean and free of loose fibers like sawdust.
2. Using a trowel, roller (preferred), or brush and coat the entire top of the first panel of wood (or wall) with QuietGlue. Go all the way to the edge. You can coat existing walls in this way as well, as QuietGlue is thick enough to stay on.
3. Final coating thickness should be about 1/16th of an inch.
4. Once coated, place the other panel on top of the panel with the QuietGlue within 10 minutes. Get the air bubbles out and ensure a good bond. Be careful as the boards may slide on one another.
5. Insert drywall or wood screws along the edge about every 12 inches to prevent the edges from pulling apart as the glue dries. You may be able to remove the screws later. Instead of screws, you can use C-clamps on the corners and weights in the middle if the panels are lying down.
6. Cure time is 24 hours. Tack-free time is 1-2 hours. Cleanup is with soap and water.
7. Once cured, you may cut, route, drill, and put screws through the wood. Anything you would have done with a single piece.

QuietGlue can be used with any type of wood. It can even glue different types of wood or different thicknesses of wood together. It will also work with only one surface as wood.

For example, you could glue wood pieces to panel metal to damp either material effectively. After a full cure, QuietGlue is a very strong glue since it's quite flexible.

Acoustical & Architectural Technical Support

If you have any questions during installation, Quiet Solution's staff of professional consultants will be happy to offer guidance. Contact our architectural consultant or our acoustical engineer at 408-523-4000.

Architects, home theater designers, builders: send us your AutoCAD drawings. We will analyze the STC goals and help specify a bill of materials

Resources

Building a home theater involves some important decisions. A great place to start your search for a home theater contractor is with industry organizations:

HTSA - Home Theater Specialists of America: www.htsa.com

CEDIA - Custom Electronic Design & Installation Association: www.cedia.org

Various specialist home contractors can help you construct an appropriate quiet environment for your home theater. They design acoustically optimized home theaters, media rooms and precision listening environments and are familiar with the Quiet Solution Home Theater System:

Audio One www.audio-one.com

Charles Salter & Associates www.cmsalter.com

Keith Yates www.keithyates.com

Mody & Mody www.hometheaterstore.com



*Our architectural and acoustical consultants are available to help you.
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