IsoDamp Soundproofing System

ARCHITECTURAL GUIDE

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What is ASC's IsoDamp System?

Unlike other soundproofing systems, IsoDamp is based on the principle of stopping sound transmission by absorption of sonic energy. Just like the shock absorber in a car, IsoDamp is designed to quiet by absorbing excess sound. Many soundproofing systems available today seek to contain sound instead of absorbing. While they work quite well containing, the excess sound is simply bounced around in the room. It's like driving around town with no shock absorbers, a pretty rough ride in our opinion.

All of our IsoDamp products use a product we call WallDamp. This extraordinary material was first developed for use as a vibration damping material for multipurpose industrial and automotive applications. Acoustic Sciences Corporation has been designing and testing the use of this damping material in modern frame wall construction as a noise and vibration damping interface between building materials for sound control projects. WallDamp has proven to be extremely effective for controlling unwanted noise in structures where sound transmission is critical to the function of the building space.

Besides it's remarkable characteristics, it is easy to install by any commercial contractor or "do-it-yourselfer". The product comes with adhesive coating on both sides and a paper backing material to prevent contamination. Application is purely a matter of "peel and stick".

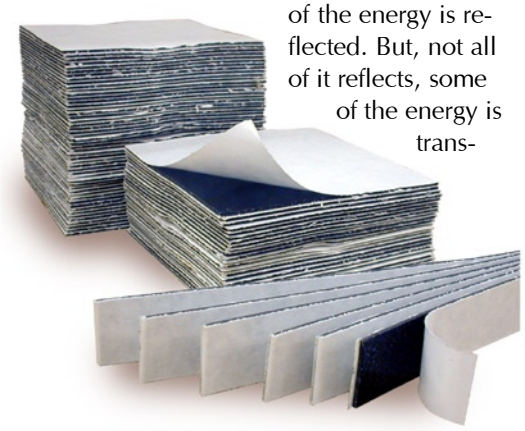
Three Levels of IsoDamp

IsoDamp Ultra for walls and ceilings is our most comprehensive soundproofing treatment. This system uses resilient channel plus felt perimeter gasket and multiple layers of sheetrock. **IsoDamp Standard** uses multiple layers of sheetrock separated by WallDamp. **IsoDamp Economy** will work with any standard stud framing system made of wood or steel. Apply WallDamp to all framing prior to sheathing. In each case, the goal is to improve acoustic qualities while reducing sound transmission.

The key is separation of each layer of wall sheathing from the wall framing by WallDamp, an acoustic dampening material. Installation is easy and requires no special tools or skills. We ship you a kit with everything you need including complete instructions.

Basic Soundproofing

Sound spends most of it's time "flying" through the air but sound in a room keeps on running into the surfaces of the room. Each time sound impacts a wall, floor or ceiling of a room, most of the energy is reflected. But, not all of it reflects, some of the energy is transmitted directly into the wallboard. The wallboard is teeming with sound which can easily be heard by using a mechanic's stethoscope. Part of this sound, trapped in the wallboard leaks out of the wallboard and excites the air inside the wall cavity. The remainder of the sound is conducted into the wood stud to which the wallboard is nailed or screwed. In either case, the wallboard on the far side of the wall becomes energized and fills with sound as well. This excited wallboard then stimulates the air near the wall on the other side of the wall, transmitting the original sound into the new space. Sound "leaks" through the wall two ways, by air borne conduction and by structure borne conduction.



IsoDamp Features Summary

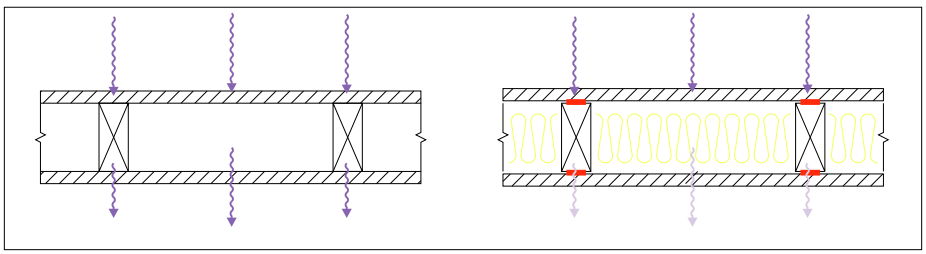
- Absorbs sound and vibration
- Very easy to install
- Uses standard building materials
- Versatile applications and uses
- Superior to barrier systems
- Lightweight, 1 lb. per sq. ft.

Most builders know to add interior wall fiberglass insulation in order to add soundproofing. The insulation reduces the build up of sound within the air cavity of the walls. The less noise there is in the air cavity, the less noise is transmitted through the wall into the next room. Adding fiberglass to the wall cavity is usually done during construction. Basic batt insulation or blown insulation is a good way to retrofit a wall for some sound absorbing properties.

Once the air cavity inside the wall is quieted down, adding more insulation does not help make things more quiet. This is because the sound you now hear is being conducted mainly from the wallboard of one room through the stud and into the wallboard of the next room. Adding WallDamp to the face of the framing, between the wallboard and the framing creates a sound attenuating gap in the conduction path. **What fiberglass does for the air in the wall cavity, WallDamp does for the wood or metal in wall framing.**

IsoDamp Soundproofing

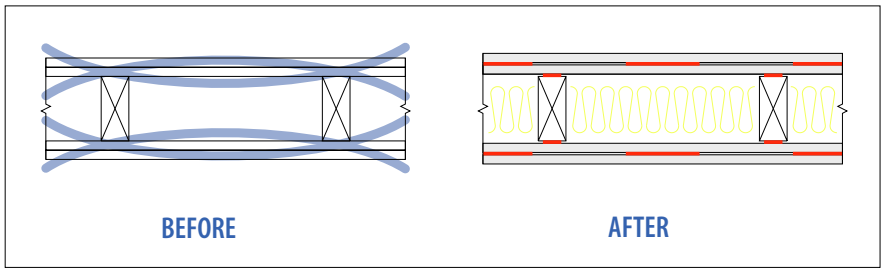
When WallDamp is placed between the stud face and the wallboard, the sound conducting path between the two sides of the wall is disconnected, interrupted by the thin layer of sound damping material. Like adding fiberglass to the wall cavity, adding WallDamp



WallDamp blocks the sounding board effect, the conduction of sound right through the studs and wall cavity

to the framing faces dampens sound transmission. This occurs in the higher frequency ranges of sound, the treble range. But there is more to the conveying of sound through a wall than the air and structure borne sound paths. Walls vibrate. Whenever a wall vibrates as a whole or in parts, sound energy rides the vibration right through the wall. WallDamp also controls the free vibration of the wall and puts a damper on these sounds vibrating through the wall.

A wall is basically a sheet of thin wallboard tacked to studs. The studs are typically 16" apart. If the wallboard is tapped with the finger or rapped with the knuckle somewhere between the studs, it twangs. The free vibration of that one section transfers across the stud to the next section and soon it is vibrating. Then the next section of wall between the studs picks up the motion and soon, the entire wall is quivering with the vibration. And the vibration is conducted through the stud and the air cavity to the wallboard on the other side which also vibrates freely at this same frequency. One good rap and the entire wall becomes engulfed in a twanging condition. Certain tones are easily conducted from one side of the wall to the other side by this mechanism. Adding WallDamp to the wallboard facing sides of the framing members calms down the wall twang, the plate vibration effect, and improves the soundproof quality of the wall.



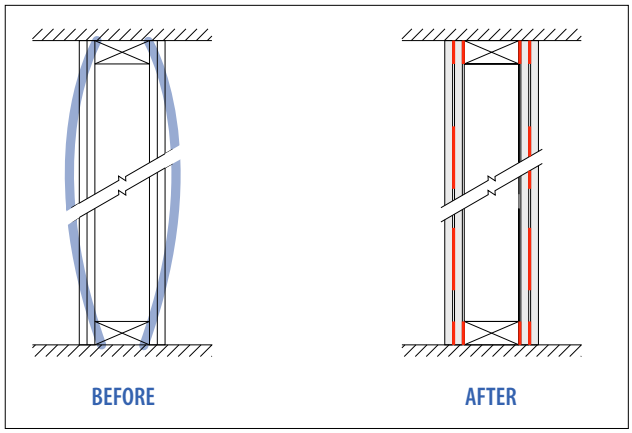
WallDamp quiets wallboard twang--the plate vibration of wallboard stretched across studs

The wall as a whole is attached to the upper and lower plates which are rigidly affixed to the other and more heavy framing members. The mid section of the assembled wall however is free to vibrate out and in. A solid thump with the tight heel of the fist will send most any wall into it's fundamental structural mode of vibration. The entire wall shudders and the sound of the shudder is as loud in one room as the other. Adding WallDamp to the wallboard facing sides of the framing members causes damping of this major mode wall vibration and improves it's soundproof quality.

Although it may be interesting that the soundproof quality of a wall, it's resistance to being knocked on or thumped is improved with the addition of WallDamp, such is not the usual reason for adding WallDamp. It isn't someone's hand that is usually exciting the wall into a vibration, it is sound itself that does it. For example, sound generated by the powerful loudspeakers found in today's home theater, media and audio rooms. The subwoofer provides ample thumping energy and the regular speakers setup right next to the walls in today's home theater systems provide plenty of knuckle tapping energy.

WallDamp Defined

WallDamp is a viscoelastic material. It is not foam or vinyl, nor is it bituminous sheet material. The concept of a viscoelastic material can be broken down into two parts:



WallDamp eliminates wall shudder--the structural vibration of the whole wall pinned between plates

A) Visco comes from the word viscosity meaning how easily a liquid pours. For example, water is not viscous and pours easily, but honey is a viscous liquid and pours very slowly. A viscous material absorbs energy when it is forced to change shape. It takes work to deform a viscous material. A lump of clay has much viscosity. It takes work to change its shape and then it holds that shape.

B) Elastic means that something can be deformed and it returns to its original shape. A rubber ball is elastic because it returns to its original shape, even after bouncing off the floor. It takes work to deform an elastic material but the material is like a spring, and stores the energy. This is why a ball bounces back.

A) + B) = C) Viscoelastic means it takes work to deform the object and also that the object returns to its original shape. But, it just doesn't spring back like a rubber ball.

Example:

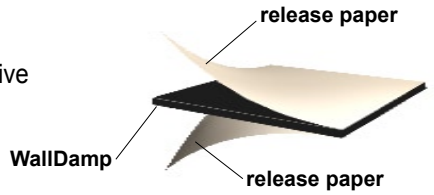
If we have three balls, one of each type; visco, elastic and viscoelastic, and then we throw them one at a time on the ground, each behaves differently. The visco ball of clay hits the ground and flattens out like a pancake. The elastic ball hits the ground and bounces right back up off the ground, as round as ever. The viscoelastic ball however takes the middle road, it hits the ground and doesn't bounce up but it also doesn't flatten out, just sits there on the ground, still a completely round ball.

How WallDamp Works

A wall, floor or ceiling is constructed using a complex set of objects, each touching the other in some fashion. When any one piece moves, it pushes on the adjoining pieces and so on. The reason WallDamp works is that it is located between all the pieces so that every time one piece pushes against another, WallDamp is there absorbing energy out of the push.

WallDamp Facts

- WallDamp is 1/16" thick.
- WallDamp has high strength adhesive
- Strips are 1.5" wide x 48" long.
- Squares are 4" x 4"



Actually, Walldamp does not absorb much energy when one piece pushes or pulls squarely on another piece. It does absorb a lot of energy when one piece tries to slide past the other. Fortunately when an object pushes on another object, there is a strong tendency for the two to slip or slide a bit at their contact point. This is where WallDamp extracts the energy - from the shifting surfaces.

The second thing about WallDamp is that it has been made to extract energy from microscopic movements. That's good because very small movements are involved in the making of sound, especially when it comes to surfaces as big as walls, floors and ceilings. There are many kinds of viscoelastic materials. The most familiar is the soft type that is put into the heels of runner's shoes to absorb the shock of the footfall. The deformation of this soft material is measured in fractions of an inch. WallDamp is relatively hard, but that is because the deformation it has to process is measured in thousandths of an inch or less. The hardness corresponds to the force and the deformation involved. WallDamp is made for structural damping.

Some viscoelastic materials soften and lose their energy absorbing power if they get too hot. Similarly, if they get too cold, they harden up and lose their energy absorbing power. WallDamp is specifically made for the temperatures found in the walls, floors and ceilings of places where people live and work and play.

WallDamp may look simple but what it does is complex and well suited to its application in damping out the free vibration of walls, floor and ceilings. WallDamp is setting the new standard in frame construction. And, once you hear the difference, you'll know what you've been missing.

The Root of the Problem

When a noise produces powerful low-frequency acoustic energy, that wave front travels through the room and then collides with the wall, floor & ceiling surfaces. Upon collision, much of the kinetic energy of the wave front is converted into mechanical (vibrational) energy, which sets the thin, flexible wall surface into vibration. This vibration is easily conducted through solid surfaces it is in contact with—such as the studs, joists and flooring. The vibration travels up and through the framing of the house—vibrating the walls, floors and ceilings as it passes them. What you get is a quaking house full of noise. This is what is known as **Structure-borne Sound Transmission**. The fact of the matter is, conventional wall & ceiling construction methods easily conduct low-frequency sound, and are poor at blocking them out.

The Solution

We have identified three ways to keep sound from traveling through a structure:

1. Block the sound by increasing the mass (thickness & density) of the walls.

2. Minimize the transmission paths for vibrations and sound to travel through.

3. Absorb & Dampen vibrational energy.

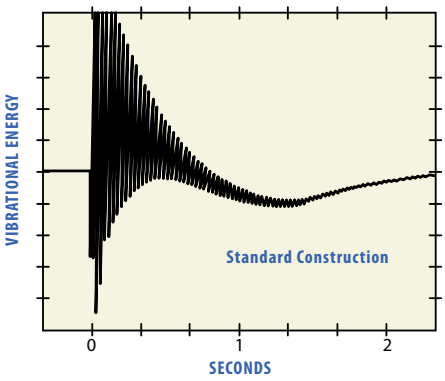
Only Acoustic Sciences proprietary WallDamp incorporates all three of these methods.

The Result

You can get walls & ceilings that reduce sound transmission by 20dB or greater compared to standard interior walls. That is more than quadruple the perceived sound volume reduction, which is what makes our wall system the highest available using standard single-stud construction.

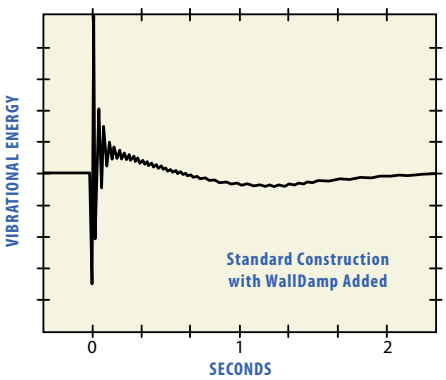
Vibration Damping

Undamped Vibrations - Vibrational energy is stored for a long period of time and can be retransmitted through other mechanisms. Example: an undamped room wall can vibrate perceptibly for more than one second when excited by sudden sonic impacts. This vibration then becomes a secondary source of sound emitted back into the room, creating a source



of unwanted lingering noise. This is highly contrary to the desired acoustics of a well-developed sound room.

Damped Vibrations - Vibrational energy is removed quickly, usually through frictional losses, and is no longer available to be transmitted. This means that there is no secondary radiation of unwanted noise and is the desirable situation for preferred sound room acoustics.

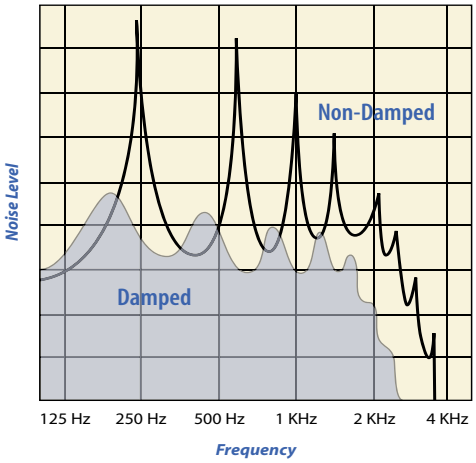


Everyday Use

Standard wall construction methods have been providing some measure of sound isolation for nearly 50 years. However, powerful low frequency sound generators, the subwoofers found in today's Hi-Fi and home theater systems, are becoming much more popular. The rise in at-home businesses has also increased the need for a quieter work environment, one which is hard to achieve with modern building density as it is. Musicians, artists and the like, have, more frequently, begun to practice and record at smaller project studios located in their homes or other urban areas. Sound control issues generated in these circumstances need to be addressed thoroughly to achieve their desired results and not

interfere with their neighbors. IsoDamp is not limited to only home-based noise control applications. It has become a necessary addition to the construction of professional and commercial spaces as well.

IsoDamp system construction is more resistant to the intrusion of external noise than standard building techniques, and



it works just as well in reverse. Loud sounds from home theater and stereo systems, music practice rooms, or workshops stays inside the house and out of your neighbor's ears. Sound and vibrational energy within the house are also reduced. Wind can blow the front door closed without shaking the entire house. The sound power from the stereo or home theater stays in the room and doesn't shudder the whole house. Kids can play downstairs and the adults upstairs hear almost nothing. Probably, the best thing that IsoDamp contributes to today's living experience is the increased sense of peace and quiet at a time when, day-by-day, more noise seems to be the only option.

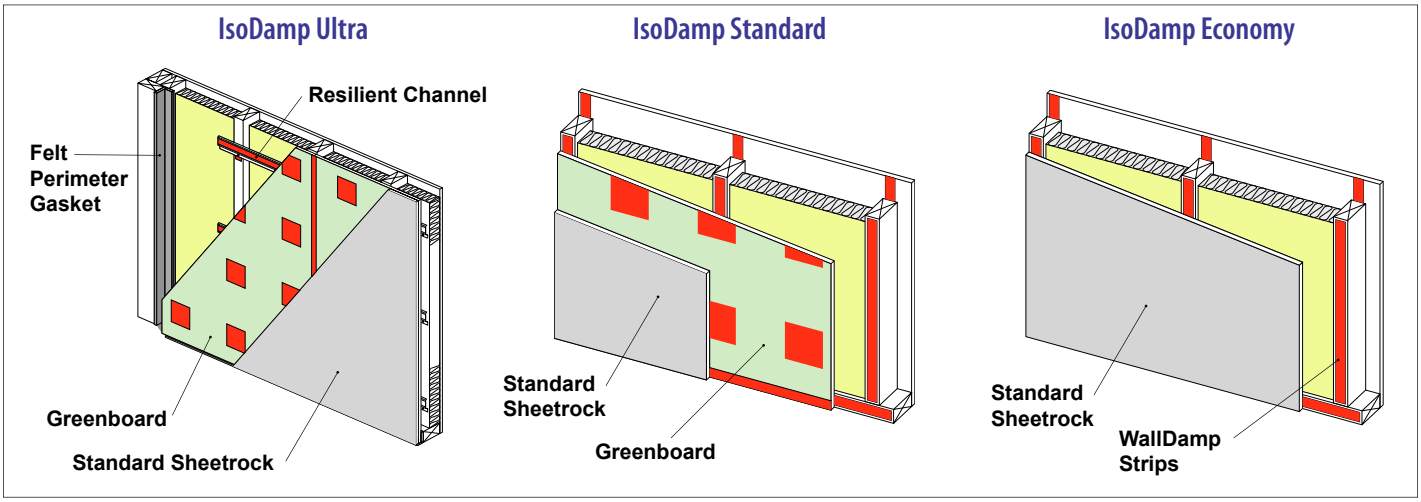
Vibration Control

What is remarkable about IsoDamp construction is that it not only keeps sound and vibration from passing through the surfaces of the room but that it actually absorbs it. By comparison, a concrete room is well known for keeping sound from getting out, but it's bad for the person left in the room, the listener. If sound can't get out of a room it has to stay in the room and reverberate. Carpet, draperies and furnishings may provide some acoustic friction inside the room to attenuate sounds in the treble range but they supply little to no absorption for sounds in the bass range. That is why concrete rooms are very ''boomy'' sounding.

When sounds or vibrations try to pass through the walls, floor or ceiling of a room, it causes those surfaces and the structure behind each of them to move. When a wall, floor or ceiling vibrates, it changes shape. The IsoDamp system uses WallDamp to separate each of the parts that make up the wall, floor or ceiling. Any movement at all by the wall, floor or ceiling causes a distortion of the WallDamp. This distortion in the WallDamp absorbs the sound energy and any vibration is quieted.

Broadband Soundproofing

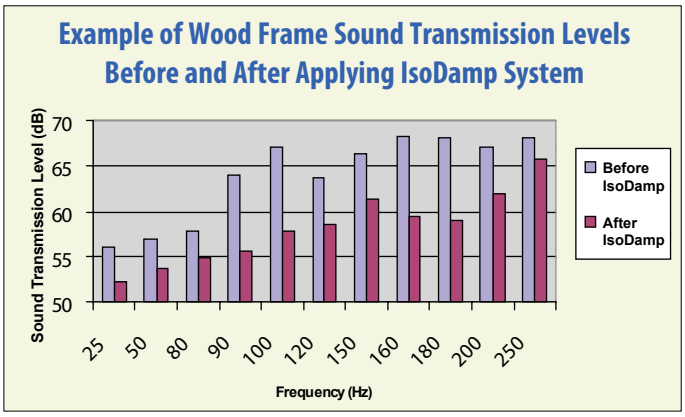
The addition of fiberglass to the wall cavity only improves it's soundproofing performance in the upper frequency range (tweeter range). Fiberglass has no effect on midrange or low frequency soundproofing. Despite it's reputation in the construction trades for soundproofing, fiberglass in the wall cavity provides but a fraction of the improvement available from the IsoDamp System. However, fiberglass in the wall cavity with WallDamp on the framing faces (IsoDamp Economy) is a one-two combination punch that is almost too simple to do, almost too easy to work with and so very hard to beat.



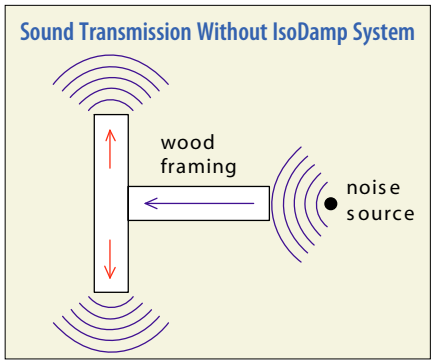
Basic components of the three levels of IsoDamp Standard

Vibration Control

During testing, the inherent sound absorbing properties of WallDamp within a standard framing system become evident. The graphic representations below show the paths and intensity of sound transmission through framing members in surface contact when a source sound was applied to the test samples.

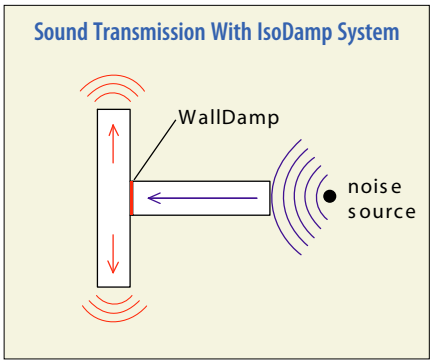


Three levels of IsoDamp system are available, all of which feature WallDamp and the isolation-damping benefits associated with it. The IsoDamp Ultra System is the most comprehensive. To achieve maximum STC values, walls and ceilings are suspended using damped resilient channel. These are flexible metal strips with added WallDamp, which are attached to framing faces. At the floor, the drywall is floating on bearing felt, and around the perimeter of the walls or ceilings, a gasket is used to help restrict even more sound transmission. The pressure fluctuations from low frequency sound can still move the walls ever so slightly but now, when the walls move, they no longer directly push the studs or joists. Since movement of the wall doesn't push the studs, it cannot transfer sonic pressure pulses into the structure of the house.



IsoDamp Standard is quicker and easier to install, using WallDamp to separate two layers of sheetrock from framing faces. This product can be used for walls and ceilings, and is great for improving the acoustic properties of any room.

IsoDamp Economy is basically the use of WallDamp strips to separate framing from sheathing. This product is an acoustic enhansement that can be applied to one room, or the whole house. With it's "peel and stick" ease of use, even a child can install it. IsoDamp Economy can be used for walls, floors and ceilings, anywhere framing faces meet sheathing such as sheetrock or plywood.



STC, NRC and IIC

Real world acoustics goes way beyond standardized lab test data. In particular, STC (Sound Transmission Class) can be very misleading, particularly in the area of high power audio applications. To begin with, STC only measures the the amount of vocal range sound that is stopped by a wall. Note that the VOCAL RANGE is a fraction of the full bandwidth AUDIO RANGE played by most modern sound systems. STC does not really apply to today's audio system.

In addition, STC is only a measure of how much vocal sound can be stopped by a wall. But that's not the end, it's just the beginning of the story. The sound energy that gets stopped by a wall, doesn't go through the wall, and that means it ends up staying inside the room. Now there is too much sound lingering inside the room, the lingering energy from one sonic event ends up covering over the perception of the next sonic event. Ever heard of sound masking?

Sound masking is usually associated with a steady background noise being introduced so that people can't hear conversations across the room. Here, the masking energy is due to the lingering storage of high density, rapid fire audio tracks. The audio, much more than voice, tends to become self masking, and the higher the STC becomes, the stronger the self masking effect becomes.

It works the same way in high STC rooms, where less sound is let out of the room than is being delivered to the room. A human voice can deliver about 50 dB of continuous sound power. A movie sound track can deliver easily 80 to 90 dB of continuous sound power. That's about 5000 times more energy than the human voice. If this energy is held in the room by high STC walls, the sound quality inside the room starts to become garbled.

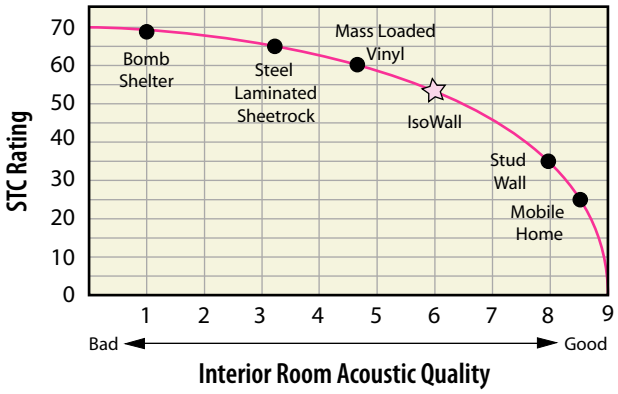
In high performance audio systems, two things usually matter: Keeping sound from bothering the neighbors and getting clear sound inside the room. As you can see, the better the STC rating, the worse the quality of sound inside the room becomes. What to do? NRC is the answer.

What is NRC?

NRC (Noise Reduction Coefficient) is the measure of the sound absorption in side the room. STC measures how much sound is kept inside the room and NRC measures how much sound is absorbed inside the room. A low STC room leaks a lot of sound and to maintain good sound quality inside the room, to keep things from getting garbled, not much, a low NRC is

needed inside the room. But, like STC, NRC is also measured in the voice ranges. STC and NRC are both voice range measurements, used for general architectural acoustics. They occupy the middle 6 octaves in the bandwidth of human sensitivity to sound. Today's high power audio systems cover the full bandwidth range, 2 octaves lower and 2 octaves higher than the vocal bandwidth.

ASC IsoWall Gives Great Acoustics & STC



However, if the room has a high STC, too much sound is kept inside the room and the room has to be "treated" so it has a high NRC, to get rid of the stored sound so that the sound inside the room isn't too garbled.

An extremely high STC room, an underground concrete bomb shelter has a very high STC, over 100 dB. Since the sound has nowhere to go, it stays inside the room, lingering for 10 to 15 seconds. Generally, a room has to have an NRC of at least 15% to be acceptable for conversation. For high power audio, the required NRC goes up to about 40%.

ASC's Happy Medium Concept

At ASC, we have developed the complete solution to high power audio room acoustics. The interior surface of the room is constructed with a medium STC surface, the type that best supports high power audio playback. On the other side of this low STC wall surface, we apply a high STC rated wall surface to achieve the necessary overall STC for the wall. Furthermore, our interior wall is very unique. It is "non-tympanic" in that it does not twang when excited, or hammered by high power loudspeakers. Our interior wall does not store energy. A standard wall thunders when thumped. A standard "soundproof " wall thunders even more when thumped. In high performance audio rooms, thundering walls are not acceptable.

Our interior wall is interlaced with constrained damping materials, which absorb structural vibration energy. Our interior wall is light enough to let some deep bass pass right through it. But to do so means the interior wall is moved. And the structural damping compound takes over and absorbs the energy right out of the wall movement.

Final Thoughts

One more thing about high STC walls, they are very heavy. This means they don't move. Rigid walls create strong and very frequency selective room modes. Our wall is "soft" and it does move. It is technical a membrane bass trap. Because it moves under bass pressure it does not create a rigid walled room and the modes are not sharp and strong. When room mode testing is done in our high performance walled room, the "soft" walls act to diffuse the modes, the room no longer has an acoustically fixed dimension. The room supports sound that has much longer wavelengths that the physical dimension of the room. This effect is very powerful and makes for excellent listening.

IIC (Impact Isolation Class)is the measure of the resistance of a wall or floor to conduct tapping or light hammering noise through the wall. Our structurally damped wall are mechanically semi-dead, and they absorb tapping energy. Next, our damped interior wall is connected to adjoining studs by metal clips set on damping pads which together act to greatly resist conducting tapping sound, they have a high STC to the conduction of tapping sounds. And finally what little gets through and into the stud, if further blocked by the structural damping sheets that interlace between the stud and the sheetrock and again between the first and second layer of sheetrock.

IsoDamp FAQ

Q: Can I use different types and thickness of wallboard than those listed in the instruction booklet?

A: Yes, but be sure to use different types and/or thicknesses for each of the two layers so that you don't double-up on any natural resonances associated with a particular wallboard.

Q: I've heard you're not supposed to put moisture resistant wallboard on ceilings. Is this true?

A: You can use MR board (green board) on ceilings as long as the framing members are sufficiently close to one another. In the case of the IsoDamp system, the framing members for the wallboard are the resilient channels. If you are using 1/2" moisture resistant board as currently recommended in our instruction booklet, then placing the resilient channels no more than 12" apart, as stated in the ceiling instructions, is sufficiently close according to the 2000 USG Construction Handbook. If you are planning on using 5/8" moisture resistant board on the ceiling, then you will need to adjust your system to place the resilient channels no more than 16" apart to be sufficiently close.

Q: The installation instructions require that I attach the ceiling Perimeter Gasket to the nailer plate above the top plates on the wall, but what if my walls don't have a nailer plate above the top plates?

A: In this case, you will need to place blocking between the ceiling joists at the perimeters of the ceiling. This will give you a continuous framed perimeter for attaching the ceiling Perimeter Gasket.

Q: Your instructions state that I should use insulation blanket with no paper or foil backing. Why is that?

A: Two reasons. First, it is best to avoid the possibility of the paper or foil surface ever coming in contact with the resilient channel. This could

create a situation where there may be a slapping sound heard from the vibration of the channel against the thin membrane. Second, we want to keep the air-flow chamber as large as possible directly behind the wall. This allows deeper breathing ability and, hence, greater overall effectiveness.

Q: What if I need to have foil or paper backing on my insulation or use a separate type of membrane as a vapor barrier?

A: If you need to have a vapor barrier, you have several options. First, if you can use insulation blanket with foil or paper backing, place the backing away from the interior of the room (see the FAQ immediately above) for which the IsoDamp system is being applied. If you must place the backing toward the interior of the room, use wire insulation supports to hold the backing at least 1 inch away from the resilient channel. Second, if you need to use a sheet of visquine or other material to cover the entire wall, place it on the opposite side of the frame from the side for which you are applying the Iso-Wall system. If you must place the material on the interior side of the frame, place it separately over each stud cavity, tucking the edges into the interior of the cavity and attaching it to the sides of the studs . This leaves the stud faces exposed for placement of the Iso-Wall system. Be sure to tuck the material far enough into the cavity so that it is no closer than 1 inch away from the resilient channel at any point (see FAQ immediately above). If you are applying a vapor barrier to conform to building code, you may be able to get the IsoDamp system itself to be considered an acceptable vapor barrier by your building inspector. If you are using the 2 layers of wallboard, including moisture resistant board, 1/2" gasket, and acoustic sealant as directed in the installation instructions, you have built an air/moisture-tight seal on that surface. This is what is required for an acceptable vapor barrier.

Q: I have a recording studio and I want to have a cable pass-through built into the wall. Can I do this and still use your IsoDamp system?

A: Yes, and, in fact, we can even help make your cable pass-through better suited for use in combination with the IsoDamp system.

Q: Can I use cement board or limp mass barriers with the IsoDamp system?

A: Yes, you can use more massive wallboard or additional layers of extra mass with the IsoDamp system. Be sure to place the resilient channel more closely together to provide the extra weight support needed, if you do this. It is important to note, however, that the individual sound blocking abilities of different materials do not simply add to one another. For example, a layer of mass-loaded vinyl may have an independent STC rating of 30dB and your existing wall may also have an independent STC rating of 30dB, but when put together you will NOT achieve an STC of 60dB. Doubling the mass of a wall will typically increase the soundblocking power by 2 to 4dB. So, for the previous example the resulting STC would most likely fall between 32 and 34dB.

Q: How do I build light switches and electrical outlets into the IsoDamp system?

A: Every room has its own unique configuration and we defer the exact solution to the expertise of the on-site builder/contractor. Electrical outlets usually occur around 10" off the floor. This places them between the bottom and the second resilient channel up from the floor. You should offset junction boxes to take into account the additional thickness of the resilient channel and 2 layers of drywall, as well as the small thickness added by the layers of WallDamp material, making the total wall thickness in the range of 1-3/4 inches. It is recommended that you leave a 1/4" gap between the edge of the box and the wallboard that should be sealed with acoustic caulk, identical to the edges of the wall. Face plates can be screwed tightly to the boxes once the caulking has had sufficient time to dry. For light switches, you should plan ahead so that appropriate adjustments to the resilient channel spacing can be made to avoid interfering with any junction boxes. Built-in lighting on the ceiling can be addressed in a similar fashion.

Q: How can I further enhance my IsoDamp system?

A: Optional additional steps you can take are to:

1. Apply an optional IsoDamp application to the opposite side of the wall (interior walls only)
2. Add ASC Stud Stabilizers to the framework or stabilize the framework by attaching it to concrete walls or foundation
3. Use larger studs and joists and fill the cavities with thicker insulation (e.g. use 2x6 with 5" insulation fill vs 2x4 with 3" insulation fill)
4. Place your layers of wallboard perpendicular to one another (i.e. put one layer on vertically and the other horizontally)
5. Use a staggered stud or double stud frame design.
6. Use ASC Wall Wool Batts in place of standard fiberglass insulation.

Q: Can I put the IsoDamp system on the floor?

A: Yes, IsoDamp Economy can be used on floor joists. To further improve sound blocking power through the floor, you should apply the IsoDamp Ultra system to the ceiling in the space below. If you wish to add a floating floor or riser to the room, contact us for more information.

Q: Can I use a layer of Plywood in the walls with the IsoDamp system?

A: It is OK to use plywood as the first IsoDamp layer. Apply WallDamp as usual. We normally prefer using sheetrock because it is heavier than plywood of the same thickness which allows the possibility for greater mass in a smaller space.