

The Ultimate Guide to: **MASS LOADED VINYL**

Everything you need to know about MLV
including what it is, costly mistakes to avoid,
and how to install it correctly



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SECTION 1: WHAT IS MLV?



Mass Loaded Vinyl, also known as MLV, is a **superior noise-blocking, non-toxic alternative** to many other lead-based soundproofing materials.

It's a heavy, limp sheeting material known for its high density and good flexibility—these two qualities allow MLV to dampen sound waves and vibrations.

MLV was created in the 1960s and has been used since to add mass to walls, ceilings, ducts, and pipes to reduce sound transmission.



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SECTION 2: HOW IS MLV MADE?

Mass Loaded Vinyl is a viscoelastic material. It's a combination of polyvinyl chloride (PVC, or vinyl) and calcium carbonate or barium sulfate.

Both calcium carbonate and barium sulfate are high-dense, inert materials (sturdy material that doesn't cause or promote change) give MLV its durability and stability.

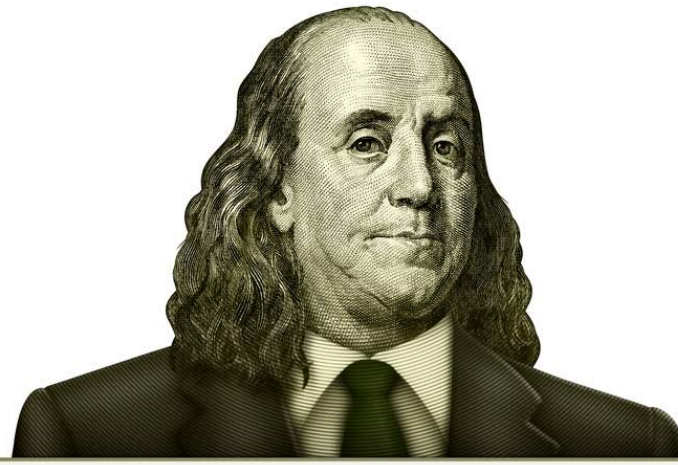
The vinyl makes the MLV flexible and amenable. Combined, these elements create the golden standard of soundproofing because, in addition to effectively blocking sound, the vinyl can be cut, fit, and bent into various shapes and surfaces thereby ensuring maximum soundproofing efficiency.



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SECTION 3:

4 COSTLY MISTAKES TO AVOID



***"By failing to
prepare, you are
preparing to fail."***

MISTAKE #1: NOT PROPERLY PREPARING FOR THE INSTALLATION

Benjamin Franklin once said, *"By failing to prepare, you are preparing to fail."* And he was right.

When it comes to installing MLV, preparation is key.

Each required tool and supply has a very specific purpose, and it's important you have all of these items handy as you begin the installation process.

Also, have a second set of hands around for the installation process. A few of the steps are a two-person job.



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REQUIRED TOOLS

- MLV
- A TAPE MEASURE
- A T-SQUARE
- PVC SEAM TAPE
- FENDER WASHER
- ACOUSTICAL SEALANT
- CAULK GUN
- WIDE HEAD FASTENERS TO SPREAD OUT WEIGHT (SUCH AS ROOFING NAILS OR SCREWS WITH LARGE PLASTIC WASHERS)
- UTILITY KNIFE

****OPTIONAL TOOLS:***

- SOUND ISOLATION CLIPS
- A HAT CHANNEL



MISTAKE #2: WINGING IT

There's nothing wrong with 'winging it' in life...unless of course, you're installing MLV.

Then, 'winging it' can be a costly and time-consuming mistake.

Even if you carefully prepare for the installation, and have top-rated soundproofing material like soundsulate, if you don't install it properly, you won't be happy with the outcome.

The number one complaint we hear about MLV is that it doesn't do what it claims to do. And the first question we ask is, "*How did you install it?*"

And we know you don't want to waste your time or money, so as you begin your installation process, make sure you follow the instructions outlined in this guide (in order).



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MISTAKE #3: USING MLV TO COVER IMPACT NOISES



Are your upstairs neighbors always dropping things? Do loud footsteps from the unit above you drive you crazy?

If you answered yes, then you might be considering MLV as a solution to reduce these bothersome sounds.

Unfortunately, if this is your intention, then you will be sorely disappointed with the results.

You see, MLV was designed to dampen ambient airborne sound waves such as those from TV's, stereos, and voices. It wasn't designed to reduce impact noises such as items being dropped on the floor, footsteps, or other vibrations. However, MLV can be used for this purpose with good results if you decouple the ceiling. In the next section, we will talk more about this and how it can be done.



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MISTAKE #4: NOT SEALING THE MLV PROPERLY

Failure to create a seal with the MLV will result in noises escaping through the gaps. Think of noise like water. Without a barrier in place, it will leak through.

Make sure you caulk all of the seams and gaps—even the tiny ones! Doing this will ensure optimal soundproofing.

The two caulking sealants we recommend are

OSI SC175 Draft and Acoustical Sound Sealant and green glue.



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SECTION 4:

GOOD, BETTER & BEST WAYS TO INSTALL MLV

GOOD INSTALLATION

Some people do not want to tear out their drywall and opt to install MLV by hanging it over a drywall area and then drywalling on top of it.

This method creates a sandwich effect where the MLV is flattened between the drywall. While in theory, it might seem like a great idea—after all, this method creates an additional layer for the MLV to work its magic... right?

Well, not exactly.

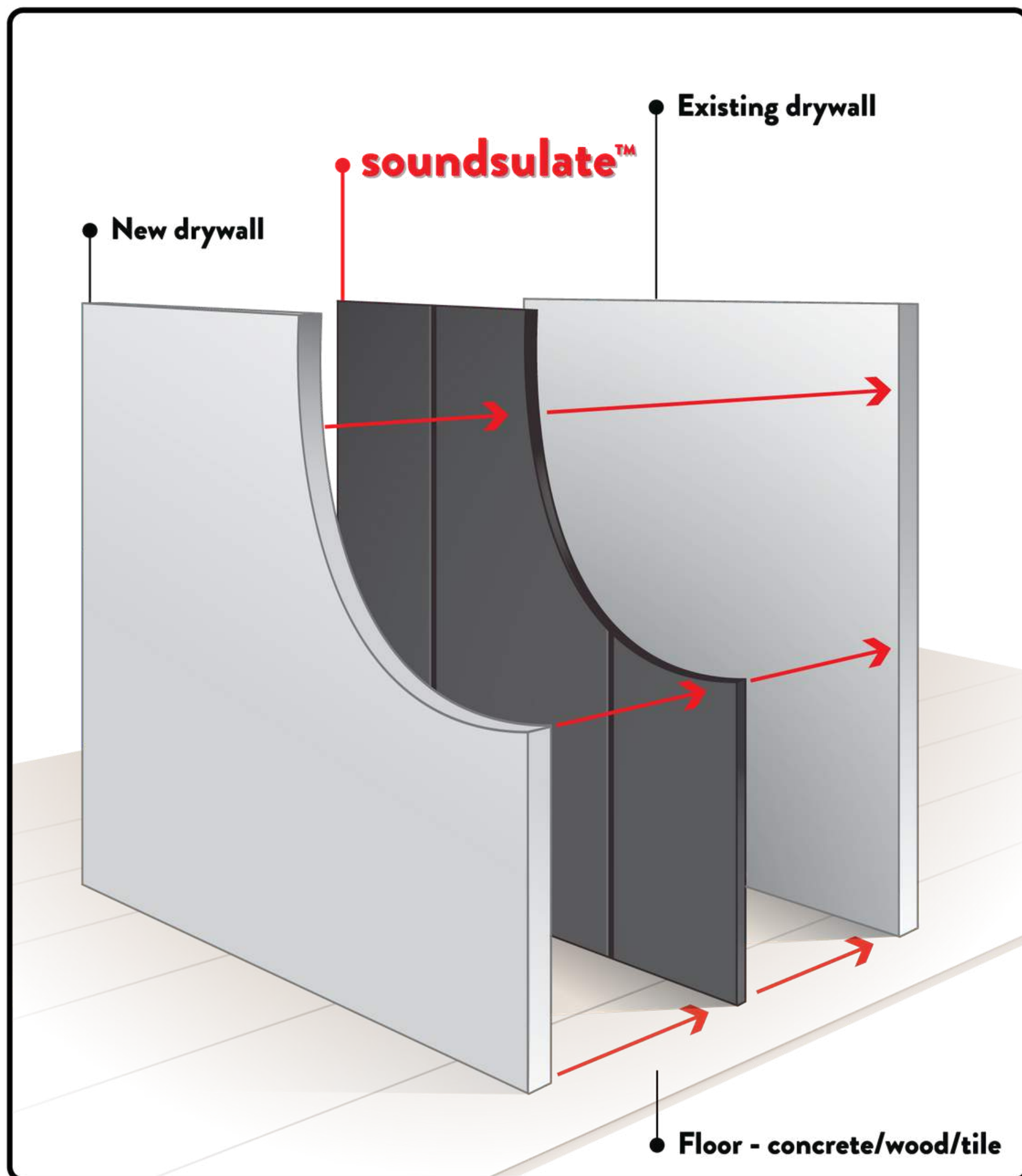
MLV blocks sound waves via movement, and when its movement is limited due to it being smashed between walls, it won't be able to block the sound waves as effectively as it would otherwise.

This method of installing MLV is good because it will reduce noise transmission and is easy to install with minimal disruption to your home. But it's not the best.



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GOOD INSTALLATION



As you can see, this method of MLV installation requires no demolition.

Instead, the MLV is simply sandwiched between drywall pieces.

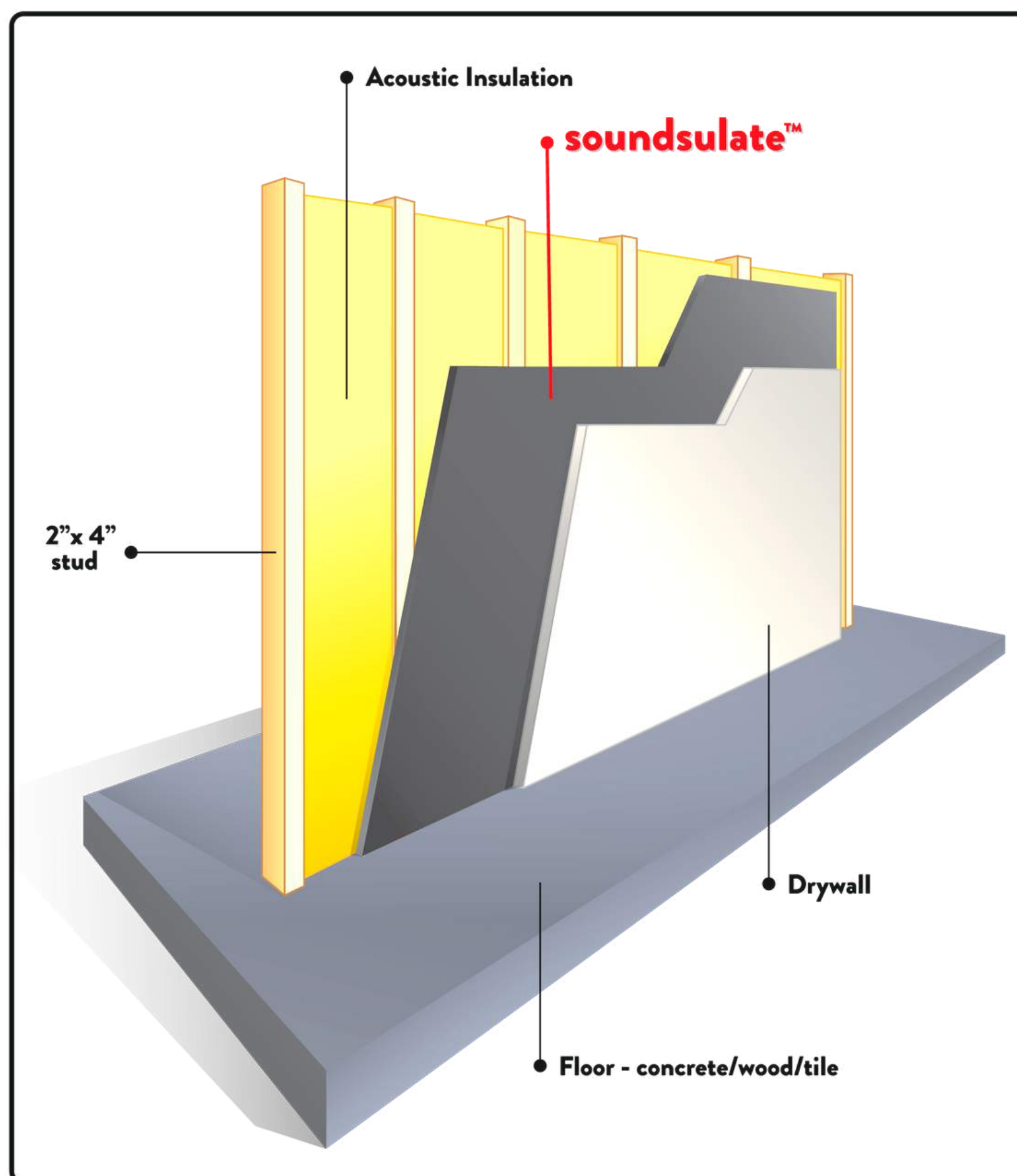


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BETTER INSTALLATION

A better way to install MLV, as opposed to sandwiching it between drywall, is to hang it over studs and then drywall over the area.

The reason this method is more effective than the "good" method is that when the MLV is placed over studs, it has space behind it which allows it to move and vibrate. Since MLV reduces soundwaves by moving, allowing it to retain some of its flexible nature will help lessen bothersome noises.



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BEST INSTALLATION

The most superior way to install MLV is through a process known as decoupling.

Decoupling is defined as separating two objects for the purpose of stopping vibration noise transmission. The purpose of decoupling is to stop the sound vibration transfer from drywall to framing and then to the drywall on the other side.

Decoupling is most commonly done with sound clips and hat channel.

This is accomplished as follows:

First, install the MLV onto the studs as described in the “How to Install MLV Section”.

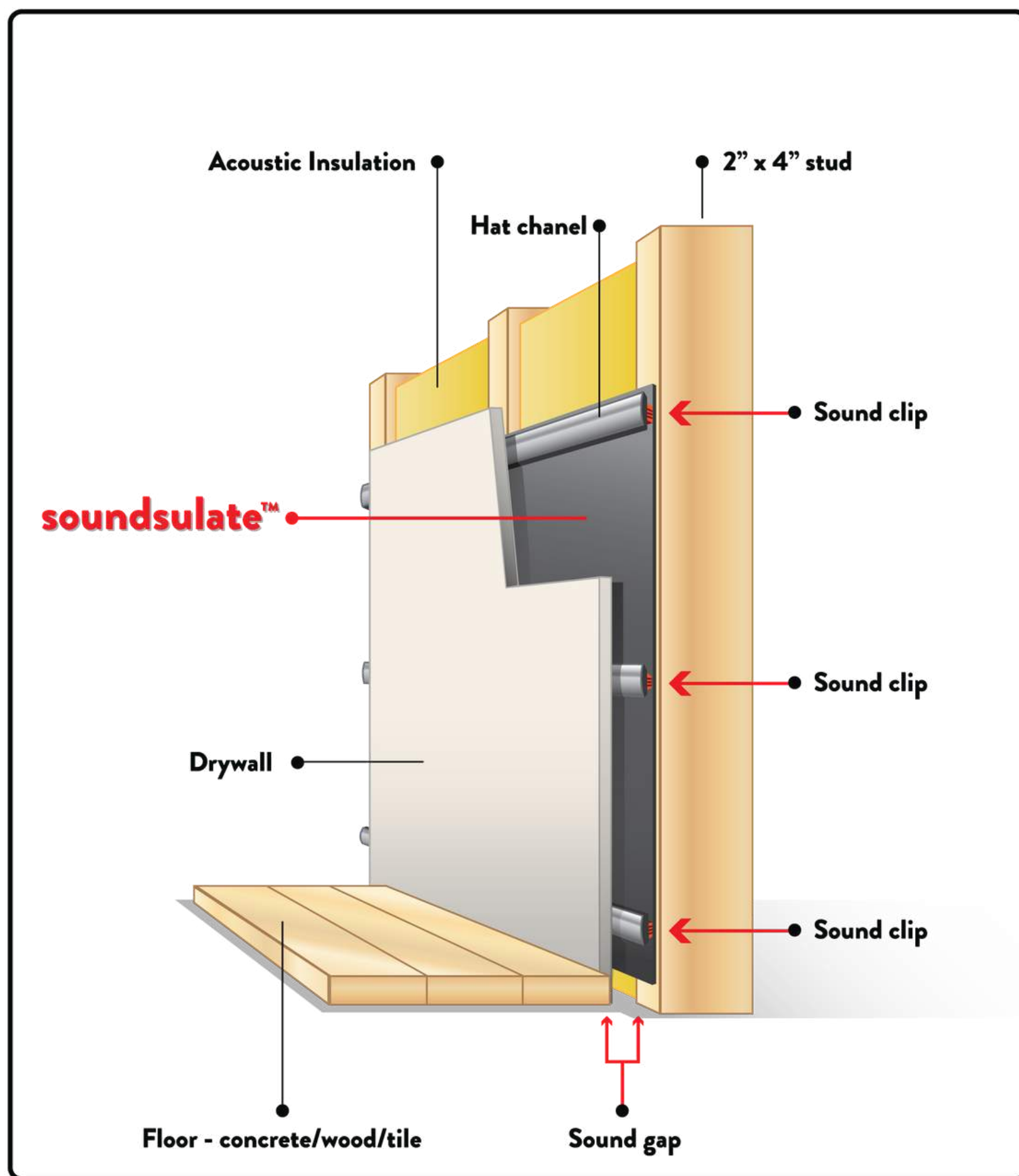
Then, install the sound clips (small metal and rubber pieces that attach to the framing with screws). The metal furring hat channel then inserts into the clips, and the drywall is then fastened to the channel.



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BEST INSTALLATION

Here's an example of what decoupling looks like:



This method creates a space with minimal connections between the framing and drywall and gives the MLV room on both sides of it to flex or vibrate. With decoupling, the sound transfer is reduced significantly.

SECTION 5:

HOW TO INSTALL MLV

STEP 1: MEASURE THE DISTANCE BETWEEN THE WALL & CEILING



Using your measuring tape, measure the distance between the ceiling or top plate and the floor.

When you do this, you'll want to make sure to subtract $\frac{1}{8}$ " to $\frac{1}{4}$ " from the measured length so there is no overlap between the surface you're covering and the floor.



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STEP 2: MEASURE THE MLV

Unroll the vinyl sound barrier on a flat surface.

Using a T-square or straight edge, cut the vinyl with a utility knife to the measured length. It's not necessary to cut the MLV all the way through. It can be scored then pulled apart.



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STEP 3: HANG & INSTALL THE MLV

In this step, you'll need the help of another person. Don't try to do this yourself. MLV is extremely heavy and requires someone to hold the MLV in place while another person installs the fasteners.

The goal when hanging MLV is to have as few seams as possible. Most people find that hanging it vertically leaves fewer seams.

Starting in the upper corner of a wall, with two people holding it in place, position the material squarely across the top edge so it drapes the wall evenly.



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STEP 3: HANG & INSTALL THE MLV

Begin by fastening the barrier along the top of the frame using a fastener at every 8 to 12-inch span. Continue down the length of the studs with the same process.

To create a seam on a stud, join two pieces of MLV against one another. Do not overlap them – these should be precisely aligned.



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STEP 3: HANG & INSTALL THE MLV

Fasten each length of MLV to the stud. For seams that fall between studs, overlap one length of MLV approximately 2 inches over the next length of MLV.

Then cut away the overlap at both the top and bottom of the frame. This is important to install drywall flush against the frame. Seal the seams with 2" vinyl or foil tape.

Expose the electrical boxes by first gently pressing MLV against the box. Use a utility knife to carefully cut an opening around the edges of the box. Keep the hole as closely and tightly as possible to the box to maintain a strong seal

***Pro-tip:** For greater sound isolation, use putty pads over electrical boxes before installing MLV.



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STEP 4: CAULK THE SEAMS



Caulk the perimeter seams with an acoustic sealant, such as OSI SC-175 Thermal & Acoustic Sealant, or Green Glue.

Then hang drywall over the sound barrier. Finish installing the walls or ceiling with drywall mud/caulk and tape.

Repeat the steps 1 - 3 until the entire wall or ceiling is covered with MLV.



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ABOUT SOUNDSULATE

MASS LOADED VINYL

soundsulate MLV is a top-rated, superior, noise-reducing vinyl sheeting material used by businesses, contractors, and individuals worldwide to reduce the transmission of unwanted noise.

Boasting a flexible, easy-to-use design, soundsulate will help you create a peaceful atmosphere in your home, office, basement, conference room, and more.

Domestically made, and internationally enjoyed, soundsulate has an STC rating of 20 - 32 so you can say goodbye to those bothersome noises for good.

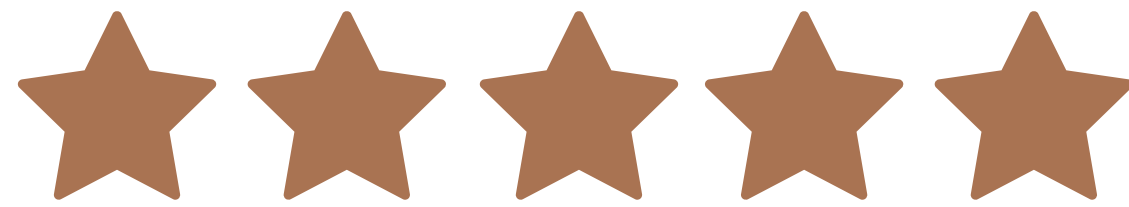
To learn more about soundsulate or to schedule a free consultation with one of our sound engineers, call 888-936-1110 or email sales@burningriverbuys.com.

Order from burningriverbuys.com and save up to 20%!



soundsulate™

If it isn't soundsulate, it isn't a sound solution.



“Excellent soundproofing—the best I’ve ever used! I have a background in construction so I’m no stranger to MLV, but this MLV actually does what it claims to do. It’s hands down the best soundproofing solution I’ve ever used.” - Chris D., Stow, OH

“Reduced noise transmission instantly! This product is insane. I live in an apartment with thin walls, and hear more than I’d like to when it comes to my neighbors. Fortunately, I found Soundsulate MLV. It was easy to install and instantly reduced noise transmission. Now, I actually feel like I live alone, rather than with roommates.” - Ed T., Chicago, IL

“Great product. It’s easy to work with, soft, and simple to cut. The roll is heavy, so make sure you have help when you install this. I’m very impressed with the sound suppression and will be recommending it to friends and family!” - Lauren S., New York, NY



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