

MASS LOADED VINYL



SOUNDPROOFING INSTALLATION MANUAL

When building sound isolated walls, floors and ceilings, we want to introduce significant non-resonant mass. MLV is an excellent source for this non-resonant mass. Other building materials such as drywall, plywood, and concrete are all very resonant, creating problems during construction. This makes MLV unique and a very useful source of the desired non-resonant mass.

You'll find MLV very useful for adding thin mass to walls, floors and ceilings. This mass directly lowers sound transmission.

Our MLV material comes in both 48" and 54" widths. 48" is generally used when hanging MLV on framing, while 54" is slightly more economical and commonly used on larger expanses such as floors.

ALL MLV IS NOT CREATED EQUAL

Many low-cost MLV products use cheaper materials to manufacture. It's important to note that we only use vinyl that contains polymeric plasticisers for strength and stability rather than the cheaper monomeric. We also only use extruded MLV rather than cast, as cast MLV is quite weak. Make sure you're getting the quality you're paying for.

WARRANTY: Because of the many installation variables beyond our control, we shall not be liable for incidental and consequential damages, directly or indirectly sustained, nor for any loss caused by application of these goods not in accordance with current printed instructions or for other than the intended use. Soundproofing Company, Inc liability is expressly limited to replacement of defective goods. Any claims shall be deemed waived unless made in writing to us within thirty (30) days from the date it was or reasonably should have been discovered.

BUILDING CODE: The Soundproofing Company presents these construction concepts with the understanding that local Building Codes vary. It is the responsibility of the installer to ensure that these concepts meet local Building Code. The Soundproofing Company is not liable for mis-installation or non-compliance with local code.



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REQUIRED MATERIAL

- ▶ Tape Measure
- ▶ Utility Knife
- ▶ T-Square or Straight Edge
- ▶ Pneumatic Cap Stapler, Hammer or Screw Driver
- ▶ Roofing Nails, Cap Staples, or Screws with Caps
- ▶ Vinyl or Foil Seam Tape
- ▶ Acoustical Sealant

OPTIONAL MATERIAL

- ▶ Outlet Putty Pads

SPECIFICATIONS

Material:	Extruded Mass Loaded Vinyl with Calcium Silicate
Width:	48" x 25' (1 lb.) 54" x 30' (1 lb.) 48" x 18' (2 lb.) 54" x 15' (2 lb.)
Color:	Black
Surface:	Smooth finish
Density and Weight:	1.0 lb. per sq.ft. 2.0 lb. per sq.ft.
Thickness:	1/8"(1 lb.) & 1/4"(2 lb.)
Tensile Strength:	500 psi
Die "C" Tear:	100 lb.
Shore:	85 +/-5
Elongation:	90%
Burn Test:	Meets MVSS302 ULP4 - HF-1
Service Temp:	-20F - 180F

FASTENERS - SUPPORT THE WEIGHT

Our MLV is an extruded, not cast product, consequently it is much more resistant to tears. Having said that, MLV can still easily tear under its own weight. Care needs to be taken during installation.

It's important to use the proper fastener. A wide head fastener is needed to spread out the weight; such as Cap Staples, Roofing Nails or Screws with Plastic Washers.

Do not expect one or two fasteners to support the significant weight of MLV. Secure the beginning of the roll with several fasteners, before allowing to hang.

All fasteners must be anchored flush into the structures framing. Do not rely on drywall alone to support the weight of the MLV.



WHERE TO APPLY?

Mass Loaded Vinyl can be installed over existing surfaces or directly to wood and metal framing. MLV is equally effective whether placed loosely or taught on framing. Additionally, MLV is equally effective attached to framing or constrained between layers of drywall, plywood, plaster, etc. The material functions so well because of its mass and independent lab tests clearly show there is no advantage installing limply or rigidly. Install in whatever manner is most convenient.

If installing on bare wall studs or ceiling joists, it is generally easier to install parallel to the framing. So for example MLV would be installed vertically on wall studs. This allows you to press on the seams when sealing, because there's a stud or joist behind the seam.

If installing on existing drywall or plaster & lathe, find the studs or joists and mark them with a chalk line. MLV can just as easily be installed horizontally or vertically in this case, as the existing wall will support the seams and you will have a very flat application.

PREPARATION: MEASURING AND CUTTING MASS LOADED VINYL



1 Measure the distance between the floor and the ceiling. Subtract 1/8" - 1/4" from the measured length.



2 Place the roll of Mass Loaded Vinyl on the floor, then cut to length.



3 Use a T-Square or Straight Edge to cut a square edge. Use a Utility Knife and cut the MLV to length.

INSTALLING: MASS LOADED VINYL (MLV)



4 With the assistance of another person, position the first length of MLV in the top corner of wall. Ensure that the Mass Loaded Vinyl is straight along the ceiling so as to evenly drape the wall. Maintain an even gap along both the floor and ceiling.

Use a Pneumatic Cap Stapler for quicker installation. Fasten to every 8" along the top plate and along the length of the studs.



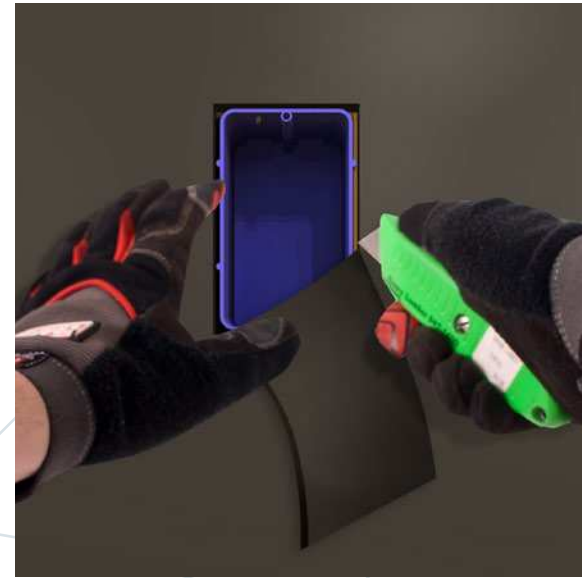
Steel Stud Installation

Use 3/4" Wafer Head Tek Self-Tapping screws with washers.



5 For 16" On Center (O.C.) framing, hammer the nail and washer through the MLV every 24" o.c. along the top plate length of each stud.

For 24" O.C. framing hammer an additional nail into the top plate and bottom plate in between each stud.

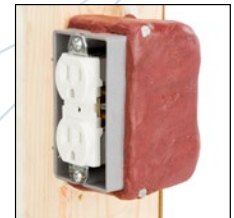


6 Be careful not to cover electrical outlets boxes. It is best to expose the outlets boxes as you install each length of MLV.

Find the electrical box in your wall and gently press the MLV against the box. Using a Razor Blade Knife and carefully cut the opening along the edges of the box. Keep this hole tight as possible to the electrical box so that you maintain a good seal.

Using Putty Pads

For superior sound isolation results, use outlet Putty Pads over electrical boxes before installing MLV.



INSTALLING: MASS LOADED VINYL



7 Repeat steps 1-6 until your entire wall or ceiling is covered in MLV.

Where MLV seams fall on a stud, butt pieces against one another and tape with Vinyl or Foil Tape.

Where MLV seams falls between studs, overlap pieces by 2". See Dealing with Seams page for detailed instruction.

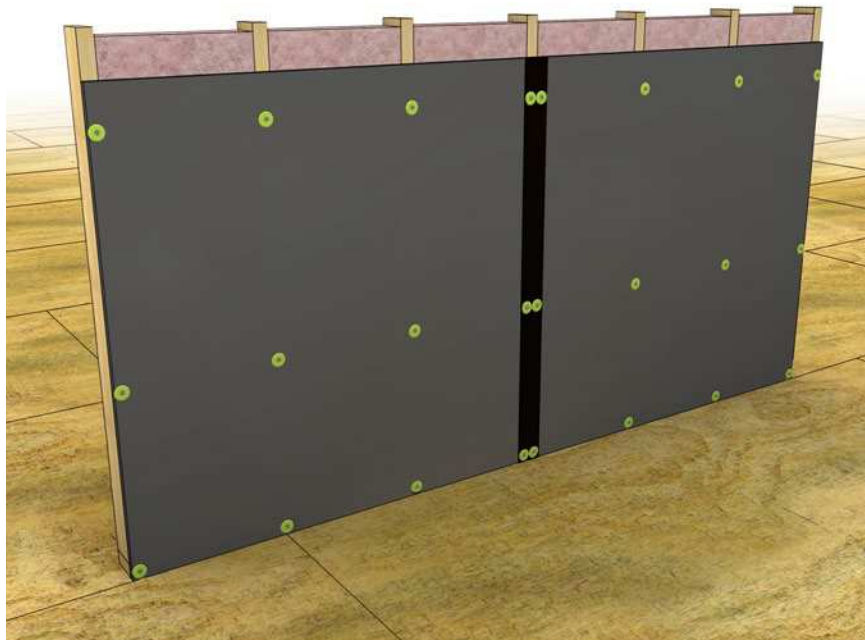


8 Hang your drywall over the MLV, vertically or horizontally. Caulk the perimeter seams with Acoustical Sealant. Proper sealing is necessary to achieve quality sound isolation results.



9 Mud your drywall seams and finish you wall or ceiling to your desired results.

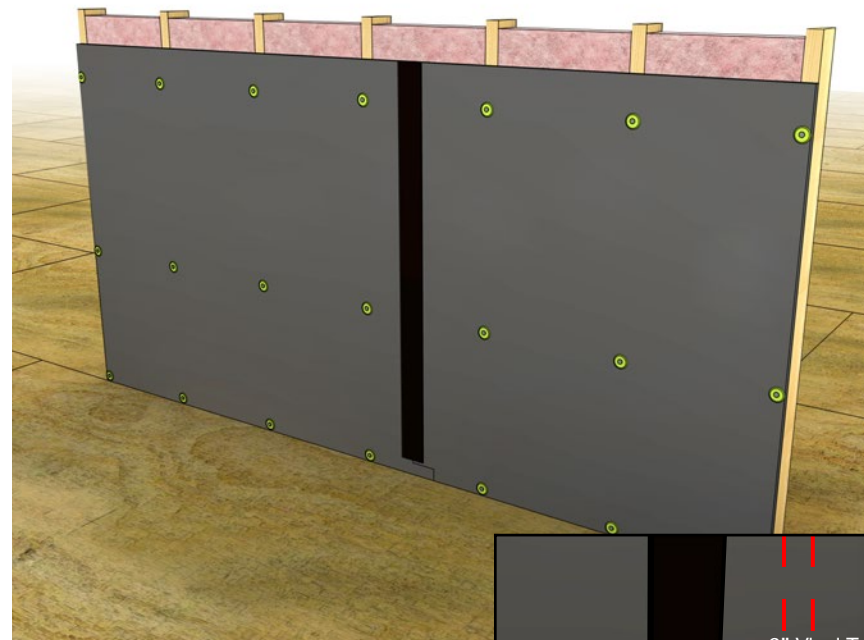
DETAILS: DEALING WITH SEAMS



Seam On the Studs

Seams on a stud makes it easier to apply Vinyl or Foil Tape. This type of installation will requires more precision when installing MLV.

To create a seam on a stud, butt two pieces of MLV against one another. Do not allow the strips to overlay one another. Fasten each length of MLV separately into the framing. Cover each seam with a strip of 2" Vinyl or Foil Tape.

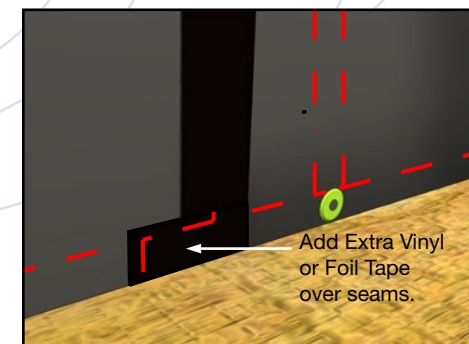
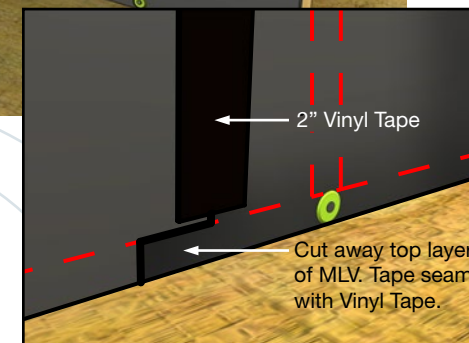


Seam Between the Studs

It is common for a Mass Loaded Vinyl seam to occur between studs, as the width of the MLV might not necessarily fit your framing.

To create a seam between studs, overlap one length of MLV approximately 2" over the next length of MLV. Cut away the layer of MLV where it overlays at the top and bottom plates of the frame. Seal the seam with a strip of 2" wide vinyl tape.

It is important to not have two layers of MLV overlapping on the framing. This will cause problems when installing drywall flush to the wall.



COMPLETED WALL ASSEMBLY WITH MLV

