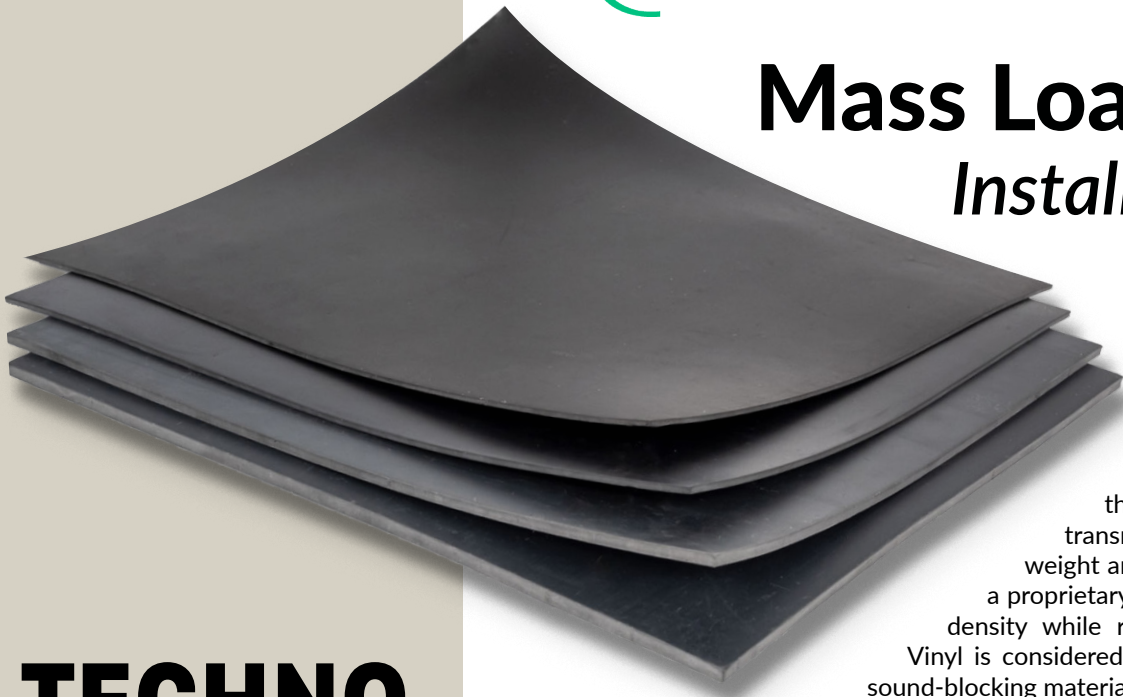# TECHNOFLEX

Mass Loaded Vinyl
Installation Guide

Mass Loaded Vinyl (MLV) is a heavy, vinyl sheeting material that is used to reduce sound transmission and unwanted noise. The weight and mass of MLV are achieved with a proprietary formulation giving MLV its heavy density while retaining flexibility. Mass Loaded Vinyl is considered to be one of the most effective sound-blocking materials available.

TECHNO
WALL
ACOUSTIC
par/by **TECHNOFLEX**

Mass Loaded Vinyl is a safe, non-toxic, odorless barrier designed to achieve maximum sound isolation in a variety of soundproofing applications such as:

- Home Theaters
- Media Rooms
- Sound Studios

- Children's Playrooms
- Laundry Rooms
- Workshops

- Mechanical Rooms
- Conference Rooms
- Break Rooms

- Dog Kennels
- Pipe Lagging
- Automotive Noise Control

Wall Installation Instructions

The installation of Mass Loaded Vinyl is very straightforward. However, there are some recommendations for optimal performance. For best results when installing in walls, it is recommended that MLV be placed against the studs, under the drywall installation. Although not necessary, it is suggested that MLV be hung vertically. This method allows for the easy taping of sections. Alternatively, MLV can be placed over the existing drywall.

MLV Acoustical Barrier Layer Installed in Wall

Drywall

Stud Wall

Insulation
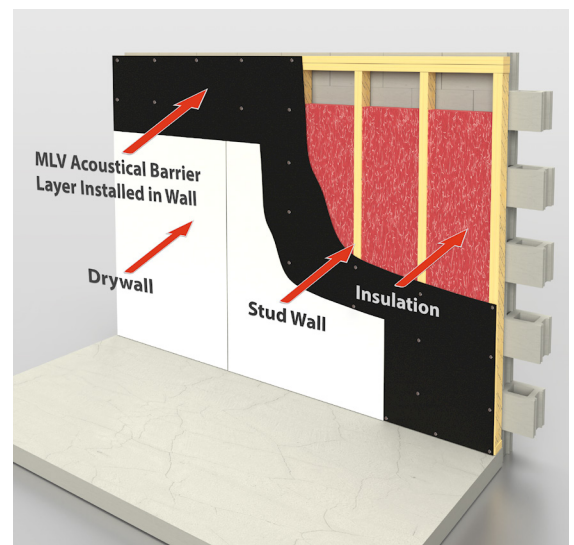
Required Tools & Supplies

- Mass Loaded Vinyl
- Tape Measure
- Utility Knife
- T-Square or Straight Edge
- Drill or Impact Driver
- Drywall Screws & Washers or Cap Nails
- Seam Tape
- Acoustical Sealant
- Caulk Gun

Installation Steps

Step 1 — Measure Wall

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

Step 2a — Measure & Cut MLV

Roll out the Mass Loaded Vinyl and measure out the length you need to cut for the section you're applying.

Step 2b:

Using a T-Square or Straight Edge, prepare to make a clean, straight cut with a utility knife at the desired length.

Installation Steps

Step 2c:

Hold the T-Square firmly in place as you make your cut to ensure a clean, straight edge on the MLV section.

Step 3 — Hanging MLV

With the help of another person, position the first length of MLV in the top corner of the wall. Ensure that the section of MLV is straight and that the cut edge is parallel to the ceiling. This will help ensure the seams of additional sections remain parallel.

Also, do your best to maintain an even gap between the edge of the MLV section at the floor and ceiling. Begin fastening the MLV section every 8"-10" along the top of the wall (top plate) before allowing the MLV section to hang freely.

Step 4 — Secure with Fasteners

After Securing the MLV section to the top plate work your way around the section along the underlying studs using the same 8"-10" gap between fasteners.

Where sections of MLV butt together on the center of a stud place fasteners in each section at the seam.

Where sections of MLV meet between studs, overlap them by 2" and secure each section with fasteners where it is on top of a stud. The loose, overlapping seam will be fastened closed with MLV seam tape to finish.

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Installation Steps

Step 5 — Cutting Outlets

Be sure not to cover electrical outlet boxes. It's helpful to expose the outlet boxes as you install each length of MLV.

Locate the electrical box in the wall and gently press the MLV against the box. Using a utility knife, carefully cut the opening tightly to the edges of the junction box.

For an even better sound seal consider using a putty pad to seal the rear side of the junction box.

Step 6 — Cutting Overlaps

Prepare the overlapping seams at the bottom and top plate of the wall by cutting an L-shaped notch as pictured. The cut that is parallel to the floor should be just above the stud wall bottom plate. The cut that is perpendicular to the floor should be made so that the new edge butts cleanly to the layer of MLV below it. Reverse the procedure for making the L-shaped cut in the section where it overlaps at the stud wall top plate. This will ensure the seam lays flat under the drywall application. Refer to "Dealing with Seams and Overlaps" for a more detailed explanation. *Repeat steps 1-8 until your entire wall or ceiling is covered in Mass Loaded Vinyl.*

How to Finish Seams and Overlaps - See page 5

refer to Figure 1

refer to Figure 2

refer to Figure 3

Installation Steps

Dealing with seams and overlaps - continued from page 4

Figure 1: When the sections of MLV meet together on a stud do not overlap. Butt the seams tightly together and fasten with screws and washers or capped nails in an alternating pattern every 8"-10" along the stud as pictured.

Figure 2: When the sections of MLV don't meet together on a stud, overlap the sections approximately 2" and fasten each section along the closest adjacent stud with screws and washers or capped nails as pictured. Fasten the overlapping seam together with MLV seam tape.
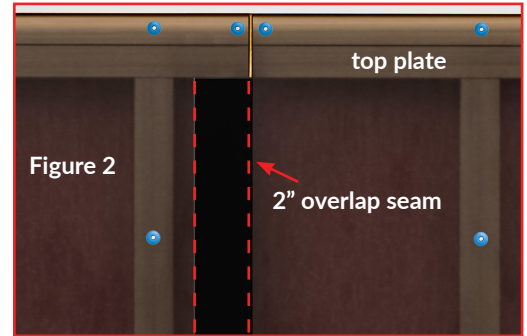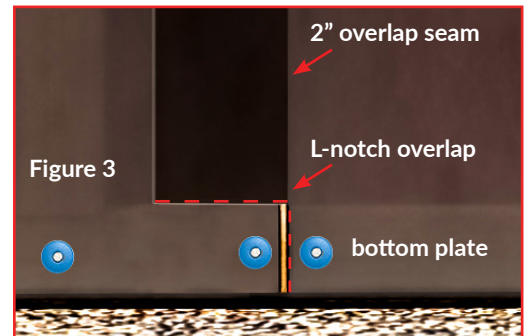
Figure 3: Where sections of MLV overlap it is important to notch them at the top and bottom plate so that they lay flat for drywall installation. Start by cutting through both layers of overlapped MLV parallel to the top and bottom plates. Then cut through both layers of MLV, where they cross the top and bottom plates, perpendicular to the floor and ceiling. This will create an L-shaped notch when you remove the cut-out material from the top-most overlapping layer of MLV. Finally, secure the newly created butt joints, where they cross the wall plates in the L-shaped notch, with screws and washers or capped nails as pictured. Finish the notch by taping over all seams with MLV seam tap.

Figure 1 — top plate, butt seam

Figure 2 — top plate, 2" overlap seam

Figure 3 — 2" overlap seam, L-notch overlap, bottom plate

Step 7 — Taping
Using MLV seam tape, seal all seams where the MLV butts together and on overlapping seams. This will further reduce the transmission of unwanted noise by eliminating air gaps between sections of the MLV material.

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Installation Steps

Step 8 — Caulking

Hang drywall over the Mass Loaded Vinyl, vertically or horizontally. Caulk all seams along with all floor and ceiling gaps with Acoustical Sealant and a caulk gun.

Anywhere there are air gaps, sound waves will easily pass through. Proper seam sealing is necessary to achieve the highest level of noise reduction.

Step 9 — Mudding

Finally, mud all drywall seams and finish the wall or ceiling as desired to achieve the finished look.