

# Levelrock™ Sound Attenuation Mat

## SAM-N25™ SAM-N40™

**Premium sound mat products**

- STC and IIC values help meet or exceed code requirements for sound attenuation
- Robinson tested for system durability
- Installed by USG LEVELROCK applicators

**Description**

LEVELROCK™ SAM-N25™ and SAM-N40™ sound attenuation mats provide an economical method of improving the IIC and STC ratings of wood frame buildings. With a nominal thickness of 0.25 in. (1/4 in.) for SAM-N25 and 0.4 in. for SAM-N40, the sound mats are ideal for multi-family wood frame construction. Both SAM sound attenuation mats require a minimum 1 in. topping of LEVELROCK® floor underlayment and are made from a durable nylon polymer with a special moisture control backing.

**Limitations**

- Do not use in exterior applications.
- Do not use as a wearing surface.
- Do not use mechanical fasteners to install the sound attenuation mat as mechanical fasteners conduct impact sound, eliminating acoustical isolation.
- Do not install where continuous exposure to moisture is a possibility (i.e. exterior balconies or large commercial/institutional shower rooms).
- Do not install on deflections exceeding L/360.
- Do not install on plywood/OSB subfloors lacking tongue and groove edges without back-blocking.
- Protect LEVELROCK underlayment floors poured over sound attenuation mat from heavy trade traffic loads (i.e. loaded drywall carts, heavy tool cabinets, etc. ...) with plywood.

**Installation**

SAM sound attenuation mats are intended for use on plywood or OSB subfloors in wood frame construction. These subfloors must not exceed L/360 deflection. The plywood or OSB edges must be tongue and groove or the use of back blocking is required. The subfloor must be clean and free of construction debris and dirt. The building temperature should be maintained at a 50 °F minimum.

Lay the SAM sound attenuation mat onto the wood subfloor. The sound mat must lay flat, uniform and even. Butt the edges together, with the factory seams in the center and cut edges toward the walls. The flap on the SAM sound attenuation mat should overlay the sound mat adjacent to it. Tape the seams with a high-quality duct tape or use a spray adhesive to adhere the flap to the adjacent SAM sound attenuation mat. The SAM sound attenuation mat should be primed with LEVELROCK™ floor underlayment primer prior to the installation of the underlayment. More detailed installation instructions can be found in the *LEVELROCK Applicator's Manual*.

To minimize horizontal transmission of sound, install LEVELROCK™ perimeter isolation strip after the SAM sound attenuation mat is installed so that a portion of the strip is against the wall and a portion is against the sound mat. Ensure that there is no seepage of LEVELROCK floor underlayment beneath the SAM sound attenuation mat, as this will compromise the sound mat's performance.

**Product Data**

	SAM-N25	SAM-N40
Width (inches)	48.0	48.0
Roll length (lineal feet)	125.0	100.0
Coverage per roll (sq. ft./roll)	500.0	400.0
Mat thickness (inches)	0.25	0.40
Mat thickness (mm)	6.4	10.0
Roll diameter (inches)	22-24	22-24
Weight/roll (lbs./roll)	48.0	40.0



**Test Data\***

STC results were improved approximately 4-5 points; IIC results were improved approximately 4-8 points (depending on floor covering). Tests were conducted at USG's Corporate Innovation Center and Intertek Laboratories. Contact your USG or ALCORP marketing representative for test results.

**System Descriptions**

**Open web (UL Design L521) system description from top down:**

- Various hard surface floor coverings
- 1 in. LEVELROCK® floor underlayment
- LEVELROCK SAM-N25 or SAM-N40 sound attenuation mat with perimeter isolation strip installed on the perimeter of the installation (see detail in drawings below). The SAM sound attenuation mat was primed with LEVELROCK floor underlayment primer (concentrate) prior to the installation of the underlayment.
- 3/4-in. thick tongue & groove wood structural panels applied perpendicular to joists
- 18-in. open web truss joist spaced 24 in. o.c.
- 3-1/2-in. fiberglass insulation, held up against the subfloor with 12-gauge wire clips
- Resilient channel spaced 16 in. o.c.
- Ceiling: 5/8-in. SHEETROCK® FIRECODE® C gypsum panels

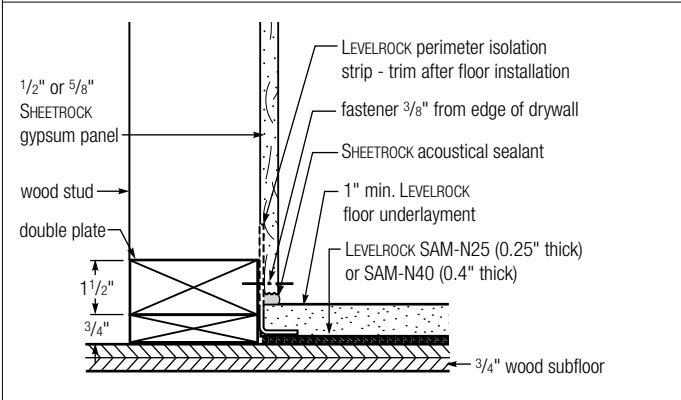
**I-joist (UL Design L570) system description from top down:**

- Various hard surface floor coverings
- 1 in. LEVELROCK floor underlayment
- LEVELROCK SAM-N25 or SAM-N40 sound attenuation mat with perimeter isolation strip installed on the perimeter of the installation (see detail in drawings below). The SAM sound attenuation mat was primed with LEVELROCK floor underlayment primer (concentrate) prior to the installation of the underlayment.
- 3/4-in. thick tongue & groove wood structural panels applied perpendicular to joists
- 9-1/2-in. I-joist framing members spaced 19.2 in. o.c.
- 3-1/2-in. fiberglass insulation, held up against the subfloor with 12-gauge wire clips
- Resilient channel spaced 12 in. o.c.
- Ceiling: 2 layers - 5/8-in. SHEETROCK FIRECODE C gypsum panels

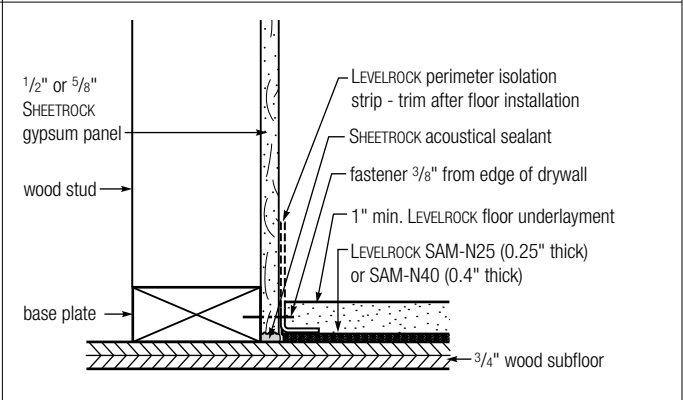
\* Tests were conducted under laboratory conditions according to ASTM E90 and E492 in a NVLAP-accredited facility. Actual field conditions may vary from laboratory conditions and affect results. Consult ASTM E1007 for a list of variable conditions.

**Assemblies**

**Wood Subfloor, Wood Frame—LEVELROCK Installed Before Drywall**



**Wood Subfloor, Wood Frame—LEVELROCK Installed After Drywall**



**Submittal Approvals**

<b>Job Name</b>	
<b>Contractor</b>	<b>Date</b>

**Product Information**  
See levelrock.com for the most up-to-date product information.  
**WARNING!**  
Direct, repeated rubbing contact with the skin may cause slight irritation.

**Trademarks**  
The following trademarks used herein are owned by United States Gypsum Company or a related company: FIRECODE, LEVELROCK, SAM-N25, SAM-N40, SHEETROCK, USG, USG in stylized letters.

**Notice**  
We shall not be liable for incidental or consequential damages, directly or indirectly sustained, nor for any loss caused by application of these goods not in accordance with current printed instruction or for other than the intended use.

Our liability is expressly limited to replacement of defective goods. Any claim shall be deemed waived unless made in writing to us within thirty (30) days from date it was or reasonably should have been discovered.

**Safety First!**  
Follow good safety/industrial hygiene practices during installation. Wear appropriate personal protective equipment. Read MSDS and literature before specification and installation.



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