



It's not magic, it's engineering.™

Impact and Airborne Sound Control

GENIEMAT™ RST TECHNICAL INSTALLATION MANUAL

FOR VINYL FLOOR COVERINGS

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Base Preparation

I. GENERAL INFORMATION

The GenieMat™ line of products for impact sound insulation is engineered to provide better performance than any other sound control product available, and has been rigorously tested to achieve proven results. Made from up to 94% recycled rubber content and backed by over 100 independent laboratory and field tests, GenieMat™ has been selected and used in some of the best hotels and condominiums in the world. With the use of GenieMat FAS and FAS-HM adhesives, it can be installed under most types of vinyl floor coverings, including vinyl sheet, plank, and tile, vinyl composition tile (VCT), and felt-backed vinyl sheet flooring. All floor covering assemblies shall have prior approval before installation.

II. JOB SITE CONDITIONS

Areas to receive GenieMat™ should be weather tight and maintained at minimum, a constant room temperature of 65°F (10°C) for 48 hours before, during, and after installation.

III. SUBFLOOR REQUIREMENTS & PREPARATION

A. GENERAL

NOTE: Please follow the subfloor requirements and preparation recommendations determined by the flooring manufacturer. Use the following subfloor requirements and preparation guidelines only when no such recommendations exist for the floor covering product.

1. All subfloors/substrates must be inspected prior to installation.
2. Install GenieMat™ over wood, concrete, and approved self-levelling materials.
3. Wood subfloors should be double construction with a minimum thickness of one inch. The floor must be rigid and free from movement with a minimum of 18 inches of well-ventilated air space below.
4. Wood subfloors (when installed with use of grouted floor coverings like tile) must be prepared according to ANSI L/360 standards, as required by the floor covering manufacturer.
5. Concrete floors must be fully cured and permanently dry. Subfloor shall be dry, clean, smooth, level, and structurally sound. It should be free of dust, solvent, paint, wax, oil, grease, asphalt, sealers, curing and hardening compounds, alkaline salts, old adhesive residue, and other extraneous materials, according to ASTM F710.
6. Subfloor should be smooth to prevent irregularities, roughness, or other defects from affecting the material above it. The surface should be flat to the equivalent of 3/16" in 10', as described in ACI 117R, or as recommended by the floor manufacturer.

7. Mechanically remove all traces of old adhesives, paint, or other debris by scraping, sanding, or scarifying the substrate. DO NOT use solvents.
8. Grind high spots until level and fill low spots with an approved leveling compound.
9. All saw cuts (control joints), cracks, indentations, and other non-moving joints in the concrete must be filled with an approved patching/levelling compound. Allow patching material to dry thoroughly.
10. Any concrete subfloor can be a source of moisture-related flooring failures. It is the installer's responsibility to test the concrete or other cement-like material for moisture.
11. Maximum moisture vapor emission of the concrete must not exceed 5.5 lbs/1,000 ft² in a 24 hour period, as measured by the calcium chloride test method in accordance with the ASTM F1869 standard. If vapor emissions exceed acceptable limits, the installation should not proceed until the problem has been corrected.
12. Moisture can also be measured using the RH, Relative Humidity test method per the ASTM F2170 standard. Moisture content should not exceed 80% RH. If levels are higher using either test method, a Pliteq recommended vapor retardant must be used.

IV. HAZARDS

A. SILICA WARNING

1. Concrete, floor patching compounds, toppings, and levelling compounds can contain free crystalline silica. Cutting, sawing, grinding, or drilling can produce respirable crystalline silica (particles 1-10 micrometers). Respirable silica is classified by OSHA as a 1A carcinogen and is known to cause respiratory diseases like silicosis. Avoid actions that cause dust to become airborne. Use local or general ventilation or protective equipment to reduce exposure below applicable exposure limits.

B. LEAD WARNING

1. Certain paints may contain lead. Exposure to excessive amounts of lead dust presents a health hazard. Refer to applicable federal, state, and local laws and the publication, *Lead Based Paint: Guidelines for Hazard Identification and Abatement in Public and Indian Housing*, available from the United States Department of Housing and Urban Development.

C. ASBESTOS WARNING

1. Resilient flooring, backing, lining felt, paint, or asphaltic "cutback" adhesives could contain asbestos fibers. Avoid actions that cause dust to become airborne. DO NOT sand, dry sweep, dry scrape, drill, saw, beadblast, mechanically chip, or pulverize. Regulations may require that the material be tested to determine asbestos content. Consult the documents titled, *Recommended Work Practices for Removal of Existing Resilient Floor Coverings*, available from the Resilient Floor Covering Institute.

V. MATERIAL STORAGE AND HANDLING

A. GENERAL

1. Deliver the material to the job site in its original unopened packaging with all labels intact and stored appropriately to prevent damage.
2. Inspect all material for visual defects before beginning the installation. Pliteq will honor no labor claim on material installed with any visually apparent defects.
3. Verify the material delivered is the correct type, thickness, and amount. Report any discrepancies immediately.
4. The material and any adhesive must be acclimated at room temperature for a minimum of 24 hours before starting the installation.
5. Roll material is stretched slightly when it is rolled at the factory. At the job site, the installer should allow all cuts to relax before gluing down. Shaking the material once it is unrolled can help it to relax more quickly.

Products

I. GenieMat™ PMI

A. DESCRIPTION

Flat, resilient, single-ply white polyethylene foam perimeter isolation strip that is used to build a tub around the floor so that no hard floor covering surface touches any hard vertical surface (protrusion or wall).

B. APPLICATION

Attached at the base of the perimeter wall of the entire subfloor, as well as the perimeter of any protrusions, prior to unrolling and installing GenieMat™ products, in order to isolate or break the vibration transmission path between the floor and the wall.

II. GenieMat™ RST

A. DESCRIPTION

Robust reduced sound transmission mat made from 94% recycled rubber content used when superior sound control is required in multifamily housing, high-rises, or commercial buildings. It is available in rolls and five standard thicknesses - 2mm, 5mm, 10mm, 12mm, and 15mm. Custom sizes and thicknesses are available upon request.

B. APPLICATION

Used directly under a variety of floor coverings in wood, steel, and concrete construction, yielding exceptional results for impact sound insulation and substrate crack prevention.

III. GenieMat™ FAS

A. DESCRIPTION

High solid acrylic-urethane moisture-cured, non-sag, permanently elastic adhesive that has excellent adhesion to elastomers, concrete, and wood, and is engineered for indoor and outdoor applications.

B. APPLICATION

Used for bonding GenieMat™ sound control underlayments to wood and concrete subfloors, and for bonding specified floor coverings to GenieMat™ sound control underlayments.

IV. GenieMat™ FAS-HM

A. DESCRIPTION

Acrylic polymer-based adhesive with enhanced bonding characteristics used specifically for rubber sheet and tile flooring. It can also be used to bond solid vinyl sheet, plank, and tile, as well as VCT and felt-backed vinyl sheet flooring. GenieMat FAS-HM flashes quickly to its tacky phase and is suitable for use over porous and nonporous substrates. Its unique performance characteristics, non-hazardous components, and low volatile organic content make it suitable for use when two-component urethane products cannot be recommended.

B. APPLICATION

Used for bonding GenieMat™ sound control underlayments to wood and concrete subfloors and specified floor coverings to GenieMat™ sound control underlayments, when there is high moisture for floors above 3 lbs/1000ft²/24hr or 75% RH.

V. GenieMat™ ACS

A. DESCRIPTION

Single-component, non-skinning, non-hardening synthetic rubber sealant that is developed for acoustical sealing of drywall partitions, corridors and party walls.

B. APPLICATION

Applied in the 1/4" gap around the perimeter of hung drywall in a de-coupled wall assembly to create an air-tight seal capable of reducing sound transmission and flanking noise. It is also used as a lap joint for partitions and perimeter sealant for polyethylene vapor barriers over fiberglass batt or other insulations. May be used in contact with polystyrene.

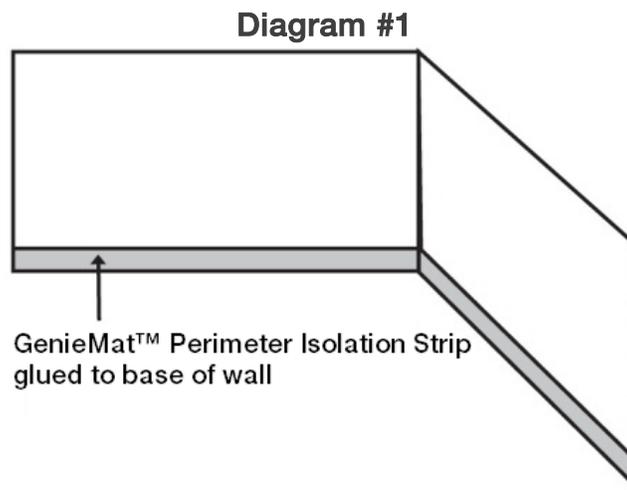
Installation

I. GenieMat™ PMI

A. INSTALLING GenieMat™ PMI

NOTE: It is essential to install the GenieMat™ PMI perimeter isolation strip before applying GenieMat™ FAS adhesive and installing GenieMat™ RST sound control underlayment on the subfloor/substrate.

1. Attach the GenieMat™ PMI to the perimeter wall of the entire subfloor, as well as around the perimeter of any protrusions, in order to isolate or break the vibration transmission path between the floor and the wall (see Diagram #1).
2. Temporarily fasten the GenieMat™ PMI perimeter isolation strips in place with masking tape, duct tape, carpet tape or spot gluing. The perimeter isolation strip will later be trimmed flush with the new top layer of flooring above the GenieMat™ RST layer.

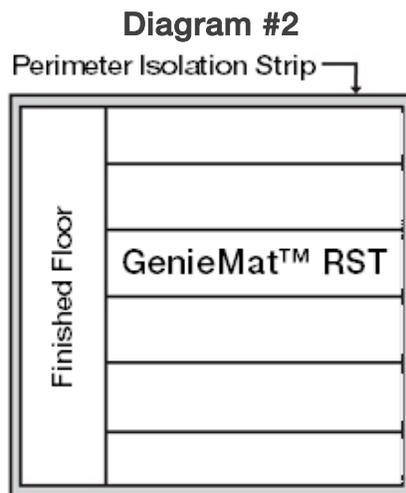


II. GenieMat™ RST

A. LAYOUT AND FITTING GenieMat™ RST

1. Assume the walls you are butting up against are not square. Using a chalk line, create a starting point for an edge of the material to follow.
2. If not already done, remove the shrink-wrap from the roll of GenieMat™ RST and unroll it onto the floor. Shaking the material once it is unrolled can help it to relax.
3. Place the GenieMat™ RST material so that it is perpendicular to the subsequent installation direction of the floor covering material (see Diagram #2).

- Trim the ends of each section as necessary in order to fit the surface area to be covered. You may trim section ends to exact dimensions required (e.g. joints with walls, etc.).
- Align the lengthwise edge of the material exactly with that of the neighboring section. Edges may be butted up against each other or overlapped.



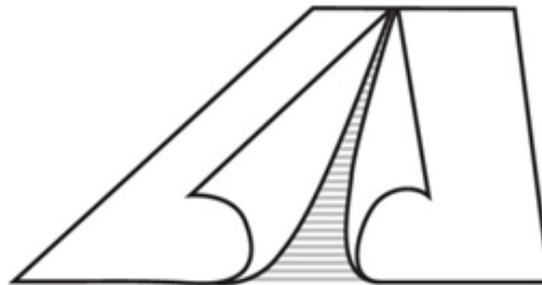
B. ADHERING GenieMat™ RST

NOTE: When using grouted or fully adhered flooring materials, the GenieMat™ RST shall be fully adhered to the subfloor/substrate with a one-step adhesive approved by Pliteq. No substitutions are permitted. Temperature and humidity affect the open time of adhesive. The installer should monitor on-site conditions and adjust open time accordingly.

- Fold the first drop lengthwise (half the width of the roll). Spread adhesive using proper notch trowel.
- Carefully lay the material into the wet adhesive. DO NOT let the material fall because this will trap air beneath the material.
- Fold over second half of first sheet and first half of second sheet (see Diagram #3).
- Spread the adhesive. At seam area, spread adhesive at 90 degrees to seam to prevent excessive adhesive oozing up to the surface of the material.
- Continue the process for each consecutive drop. Always work at a pace so that you are always folding material back into wet adhesive.

6. Never leave adhesive ridges or puddles, as they may affect the above material.
7. Use a 30 to 50 lb roller to roll over the floor within the time specified by the GenieMat™ FAS or FAS-HM adhesive data sheets to ensure proper transfer of adhesive. Overlap each pass of the roller by 50% of the previous pass to ensure that the floor is properly rolled.
8. Allow the adhered GenieMat™ RST sufficient time to cure fully before installing the vinyl floor covering.

Diagram #3



III. VINYL FLOOR COVERING

A. INSTALLING VINYL FLOOR COVERING

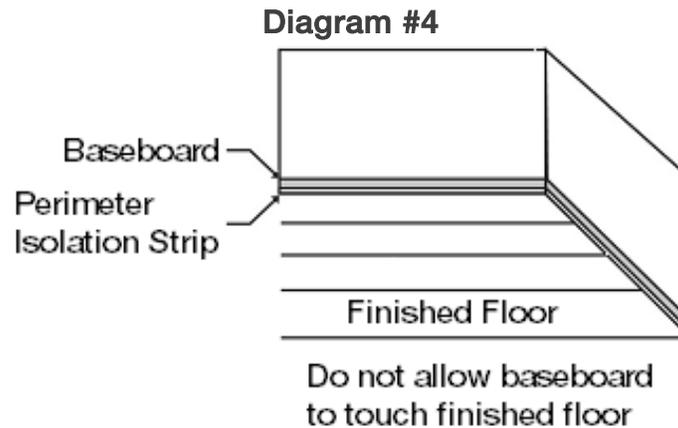
NOTE: Follow the flooring manufacturer's directions for the installation of vinyl floor coverings. Seek Pliteq approval before using their recommended adhesives, procedures, and equipment. Do not mechanically fasten any material through the GenieMat™ RST material. Any mechanical connection, such as nails, screws, staples, etc., will transmit noise through to the building structure, compromising the performance of GenieMat™ RST.

1. Install self-locking floors, such as vinyl plank, over GenieMat™ RST following the flooring manufacturer's recommendations.
2. Adhere all other vinyl sheet, plank, or tile flooring goods directly to GenieMat™ RST using either GenieMat™ FAS or FAS-HM adhesive. Follow instructions on the pail or those available from Pliteq.
3. When the flooring installation is complete, trim any excess GenieMat™ material so that it is flush with the surface of the floor covering.

IV. BASEBOARD

A. INSTALLING BASEBOARD

1. After perimeter installation strip has been trimmed to the height of the floor covering, the baseboard may be installed.
2. Fix the baseboard to the wall above the GenieMat™ RST and floor covering layers. The baseboard must be 1/4" (min.) above the floor covering and not come into contact with it (see Diagram #4).
3. Seal the entire perimeter with a permanently flexible acoustical caulk approved by Pliteq.



V. RECOMMENDED MATERIALS

NOTE: All materials shall be delivered to the job site in the original containers with the manufacturer's identification on each package. Unauthorized modification to any product is not permitted. The following materials are listed because of their extensive testing and field experience with GenieMat™ RST products. If you would like to have any materials and products evaluated as alternatives, contact Pliteq at (416) 449-0049.

A. ONE-STEP ADHESIVES

1. GenieMat™ FAS by Pliteq Inc. (416) 449-0049
2. GenieMat™ FAS-HM by Pliteq Inc. (416) 449-0049

B. ACOUSTICAL CAULKING

1. GenieClip™ ACS by Pliteq Inc. (416) 449-0049

Warranty

I. WARRANTY INFORMATION

The recommendations for applications and installation are based on our extensive experience and on current technological practice. Our liability and responsibility in the event of damages is limited to the extent defined in our General Terms and Conditions of Business and is not in any way increased by the above recommendations or by advice given by our sales representatives or applications engineering staff. Pliteq Inc. is a corporation duly organized and validly existing under the laws of the province of Ontario.

Pliteq offers a limited lifetime warranty on the GenieMat™ brand of Impact Sound Insulation products against defects in material and workmanship and GenieMat™ shall meet all published specifications and shall perform effectively. Pliteq warrants that during the warranty period GenieMat™ shall not harden, become brittle, chip, crack, tear, or exhibit any signs of excessive deterioration except for normal wear and tear. All other warranties, including implied warranties for a particular purpose, are expressly excluded. The sole remedy against the seller will be the replacement or repair of the defective goods, or at seller's option, credit may be issued not exceeding the selling price of the defective good.