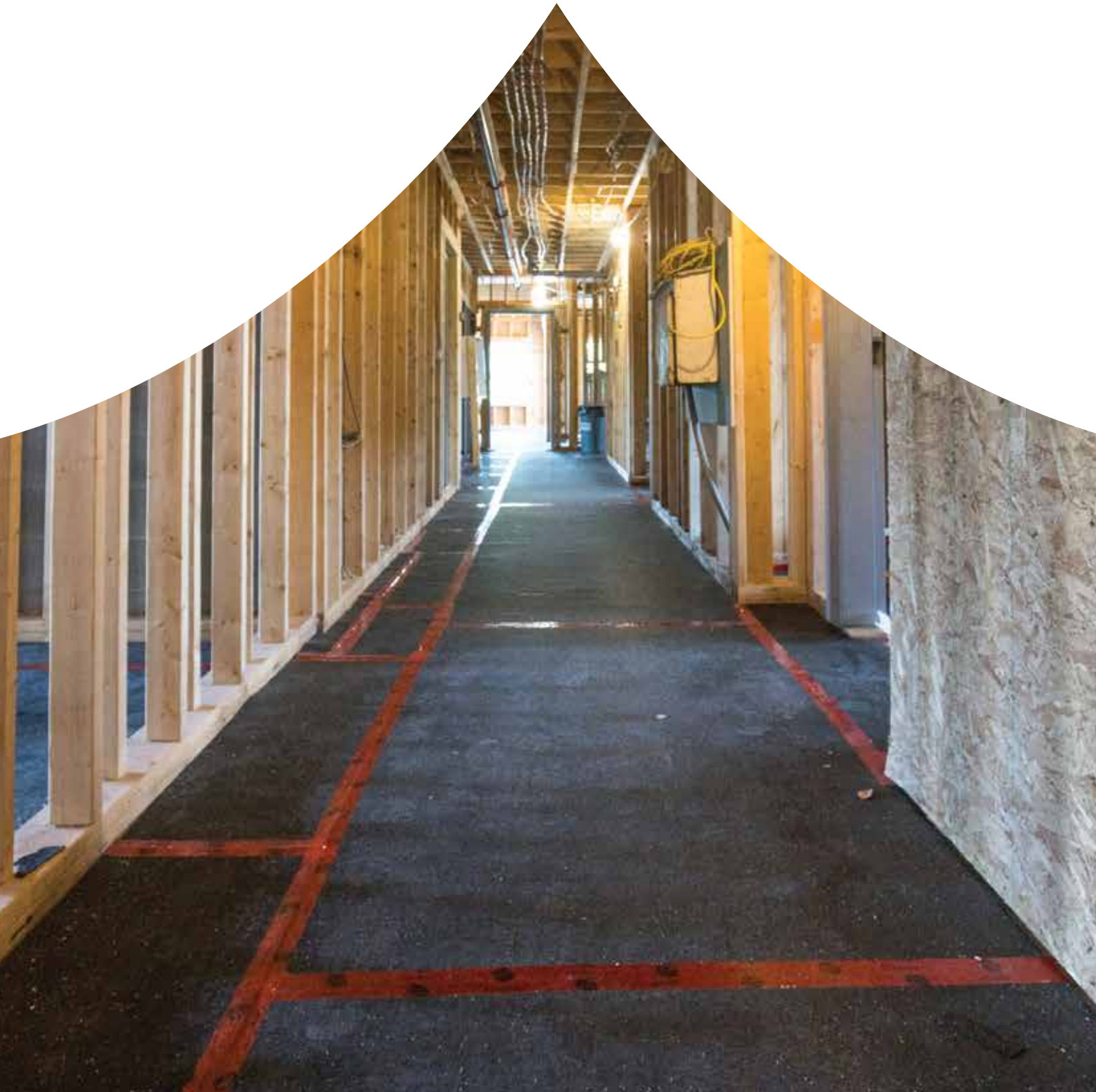




# **TECHNICAL INSTALLATION MANUAL**

**GenieMat® FFNP**



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IT'S NOT  
MAGIC,  
IT'S  
ENGINEERING.®

# PREPARATION

## 01.

### General Information

The GenieMat® line of products for impact sound insulation and has been rigorously tested to achieve proven results. Made from up to 94% recycled content and backed by 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 Pliteq's adhesives GenieMat® FAS, GenieMat® FAS2, and GenieMat® FASHM adhesives or approved local equivalents, it can be installed under a variety of floor finishes and coverings, including nail-down and floating hardwood, engineered wood, and laminate, ceramic, stone, porcelain, and marble tile, luxury vinyl tile (LVT), vinyl sheet, plank, and tile and carpet, in wood, steel, and concrete construction. All floor covering assemblies shall have prior approval before installation.

GenieMat® can also be installed under screed, gypsum concrete or lightweight concrete.

## 02.

### Job Site Conditions

Areas to receive GenieMat® should be weather tight and maintained at minimum, a constant room temperature between 65°F - 95°F (18°C - 35°C) for 48 hours before, during, and after installation.



# 03. Subfloor Requirements & Preparation

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 finishing product.

- 3.1) All subfloors/substrates must be inspected prior to installation.
- 3.2) Install GenieMat® over wood, concrete, and approved self-levelling materials.
- 3.3) Wood subfloors should be double-construction with a minimum thickness of 25 mm. The floor must be rigid and free from movement with a minimum of 457 mm of well-ventilated air space below.
- 3.4) Wood subfloors (when installed with the use of grouted floor coverings like tile) must be prepared according to ANSI L/360 standards, as required by the floor covering manufacturer.
- 3.5) 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.
- 3.6) 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 4.76 mm in 3 m, as described in ACI 117R, or as recommended by the floor manufacturer.
- 3.7) Mechanically remove all traces of old adhesives, paint, or other debris by scraping, sanding, or scarifying the substrate. DO NOT use solvents.
- 3.8) Grind high spots until level and fill low spots with an approved levelling compound.
- 3.9) 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.
- 3.10) 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.
- 3.11) Maximum moisture vapor emission of the concrete must not exceed 2.27 kg/92.9 m<sup>2</sup> 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, GenieMat® FASHM adhesive or approved equivalent must be used for conditions up to 4.54 kg/92.9 m<sup>2</sup> in 24 hours, or a Pliteq recommended vapor retardant must be used.
- 3.12) Maximum relative humidity must not exceed 85% RH, as measured by the relative humidity test method in accordance with the ASTM F2170 standard. If relative humidity exceeds acceptable limits, GenieMat® FASHM adhesive must be used for conditions up to 90% RH, or a Pliteq recommended vapor retardant must be used.

# 04.

## Hazards

### 4.1) Silica Warning

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.

### 4.2) Lead Warning

Certain paints may contain lead. Exposure to excessive amounts of lead dust presents a health hazard. Refer to applicable local laws and the publication, Lead Based Paint: Guidelines for Hazard Identification and Abatement in Public and Indian Housing.

### 4.3) Asbestos Warning

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.

# 05.

## Material Storage & Handling

5.1) Deliver the material to the job site in its original unopened packaging with all labels intact and stored appropriately to prevent damage.

5.2) Inspect all material for visual defects before beginning the installation. Pliteq will honor no labour claim on material installed with any visually apparent defects.

5.3) Verify the material delivered is the correct type, thickness, and amount. Report any discrepancies immediately.

5.4) The material and any adhesive must be acclimated at room temperature for a minimum of 24 hours before starting the installation.

5.5) 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

## 01.

### GenieMat<sup>®</sup> PMI

#### 1.1) 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).

#### 1.2) 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<sup>®</sup> products, in order to isolate or break the vibration transmission path between the floor and the wall.

**NOTE:** In some cases, the same underlayment on the floor can be used in lieu of GenieMat<sup>®</sup> PMI.



## 02.

### GenieMat<sup>®</sup> FFNP

#### 2.1) Description

Robust reduced sound transmission mat made from 94% recycled content used when superior sound control is required in multifamily housing, high-rises, or commercial buildings. It is available in rolls and five nominal thicknesses – 3 mm, 5 mm, 10mm, 12 mm, and 15 mm. Custom sizes and thicknesses are available upon request.

#### 2.2) 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.



# 03.

## GenieMat® FAS

### 1.1) Description

GenieMat® FAS is a high-solids, cross-linking, amide-ester-acrylate-resin blend adhesive. It is solvent-free, non-flammable, has low-odour and low-VOC content, contains no hazardous chemicals as per OSHA Regulation CFR 1910.1200, and meets all local government indoor air quality regulations. This specially formulated adhesive has good early strength buildup for immediate grab and gradually builds into a tenacious but resilient bond as the chemicals in the adhesive cross-link.

### 1.2) Application

GenieMat® FAS is used for bonding GenieMat sound control underlayment's to various subfloors/substrates, and for bonding specified wood finish floors to GenieMat® sound control underlayment's.

**NOTE:** If this adhesive is not available in your market, a local approved equivalent may be used.

# 04.

## GenieMat® FAS2

### 2.1) Description

GenieMat® FAS2 is a cross-linking, pressure-sensitive, amide-ester-acrylate-resin blend adhesive. It is solvent-free, non-flammable, has low-odour, demonstrates excellent water and alkali resistance, features high aggressive peel strength and shear strength, and is very quick to use and easy to trowel. This specially formulated adhesive has plasticiser migration resistance that allows installation of a broad variety of vinyl floor products.

### 2.2) Application

GenieMat® FAS2 is used for bonding GenieMat® sound control underlayment's to various subfloors/substrates, and for bonding all specified finish floors and coverings, including vinyl floor products, to GenieMat® sound control underlayment's.

**NOTE:** If this adhesive is not available in your market, a local approved equivalent may be used.

# 05.

## GenieMat® FASHM

### 1.1) Description

GenieMat® FASHM is a one-component, 100% solids, cross-linking, modified silane polymer-based adhesive. It is solvent-free, water-free, and isocyanate-free, non-flammable, has low-odour, negligible VOC content, contains no hazardous chemicals as per OSHA Regulation CFR 1910.1200, and meets all local government indoor air quality regulations. This specially formulated adhesive is a Class 1 vapor barrier, features extremely low-permeability ratings, withstands maximum moisture levels of 4.54 kg and 90% RH, and is unaffected by concrete slab alkalinity, has good early strength buildup for immediate grab and gradually builds into a tenacious but resilient bond as the chemicals in the adhesive cross-link, and plasticiser migration resistance that allows installation of a broad variety of vinyl floor products.

### 1.2) Application

GenieMat® FASHM is used in high-moisture applications for bonding GenieMat® sound control underlayments to various subfloors/substrates, and for bonding specified finish floors and coverings to GenieMat® sound control underlayments.

**NOTE:** If this adhesive is not available in your market, a local approved equivalent may be used.

# 06.

## Powertape

### 2.1) Description

Robust water-resistant tape is used to provide a secure seal of the joints between rolls of GenieMat® when used in under-floor or underscreed applications in multifamily housing, high-rises, or commercial buildings.

### 2.2) Application

Flat tape used to secure joints between rolls of GenieMat® directly under hard floor and under screed applications over concrete and wood joist construction

**NOTE:** If this tape is not available in your market, a strong duct or carpet tape can be used.



# INSTALLATION (UNDER SCREED)

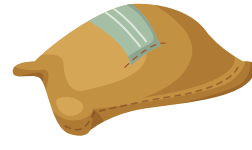
## Materials Required



Utility Knife



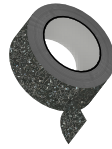
Powertape



Screed (as approved)



Broomstick



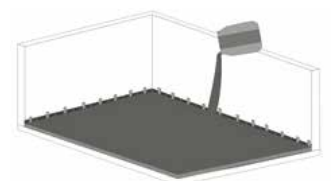
GenieMat PMI (if available)



GenieMat® FFNP (sheet or roll)

## Installation Steps

- Use the broomstick to clean the floor from debris. Refer to the base preparation instructions for more details.
- Layout GenieMat® FFNP sheet or roll underlayment onto the substrate. If the material is curling, flip it over and let it relax.
- Use GenieMat® PMI or cut a strip of the GenieMat® FFNP material (at least to the depth of the finished floor level) OR lap up the same material on the floor up the walls to be used as the perimeter strip. The perimeter strip's height should be at least to the height of the finished floor level and can be secured in place with the powertape.
- Trim ends using the utility knife and sides of each sheet or roll to fit entire floor surface area.
- Align lengthwise the edges of underlayment with neighbouring sheets or rolls by butting them up and securing them with the power tape. Ensure joints are not separated.
- Install polythene protection sheet and lay Re-bar (if applicable) then pour screed as per sub contractor's method statement.



# INSTALLATION

## (UNDER FLOOR FINISH)

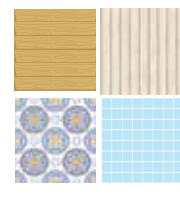
### Materials Required



Utility Knife



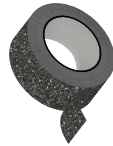
Adhesive (as approved)



Screed (as approved)



Broomstick



GenieMat® PMI (if available)



GenieMat FFNP (sheet or roll)



Powertape

### Installation Steps Floating The Underlayment

- Use the broomstick to clean the floor from debris. Refer to the base preparation instructions for more details.
- Layout GenieMat® FFNP sheet or roll underlayment onto the substrate. If the material is curling, flip it over and let it relax.
- Use GenieMat® PMI or cut a strip of the GenieMat® FFNP material (at least to the depth of the finished floor level) OR lap up the same material on the floor up the walls to be used as the perimeter strip. The perimeter strip's height should be at least to the height of the finished floor level and can be secured in place with the powertape.
- Trim ends using the utility knife and sides of each sheet or roll to fit the entire floor surface area.
- Align lengthwise the edges of underlayment with neighbouring sheets or rolls by butting them up and securing them with the power tape. Ensure joints are not separated.
- Interlock or glue planks together without gluing the planks to the underlayment and proceed to install the floated finished floor.

NOTE: \*\* To prevent direct physical connection in between screed and the structural slab, there shall be no gaps in between the underlay sheets. A resilient skirting strip must be applied to the wall to prevent any direct connection of the screed with the perimeter walls followed by a non-hardening sealant to close it off. \*\*

INSTALLATION

# INSTALLATION

## (UNDER FLOOR FINISH)

### Installation Steps - Gluing Down The Underlayment

- Use the broomstick to clean the floor from debris. Refer to the base preparation instructions for more details.
- Layout GenieMat® FFNP sheet or roll underlayment onto the substrate. If the material is curling, flip it over and let it relax.
- Use GenieMat® PMI or cut a strip of the GenieMat® FFNP material (at least to the depth of the finished floor level) OR lap up the same material on the floor up the walls to be used as the perimeter strip. The perimeter strip's height should be at least to the height of the finished floor level and can be secured in place with the powertape.
- Trim ends using the utility knife and sides of each sheet or roll to fit the entire floor surface area.
- Align lengthwise the edges of underlayment with neighbouring sheets or rolls by butting them up. Ensure joints are not separated.
- Fold the first sheet of underlayment halfway lengthwise.
- Spread the approved adhesive using the appropriate notch trowel.
- Carefully lay underlayment into wet adhesive.
- Fold over second half of first sheet and first half of second sheet.
- Spread adhesive perpendicular to seam.
- Continue this process for each consecutive sheet.
- Use a 13.5 to 20 kg roller over sheets to ensure proper transfer of adhesive.
- Provide enough time to allow adhesive to set before installing finished floor.

### Installation Steps - Gluing Down Vinyl Floor Coverings

- Install self-locking floors such as vinyl plank, over GenieMat® FFNP following the flooring manufacturer's recommendations.
- Adhere all other vinyl sheet, plank or vinyl tiles to GenieMat® FFNP using approved adhesive. Follow instructions on the adhesive pail or those available from Pliteq or the flooring manufacturer.
- When the flooring installation is complete, trim any excess GenieMat® material so that it is flush with the surface of the floor covering.

INSTALLATION

## Installation Steps - Gluing Down Floor Finishes

- If the flooring manufacturer recommends installation of plywood or cement board between the underlayment and finished floor, adhere the board to the underlayment.
- DO NOT nail or screw through the underlayment.
- Adhere all finished floors using appropriate notch trowel and approved adhesive.
- Install grouted flooring materials in a thin or thick-set mortar bed applied directly over underlayment.
- Tile and stone sizes smaller than 102 mm x 102 mm shall be pre-approved by Pliteq technical services.

## Installation Steps - Baseboard or Skirting

- Trim excess GenieMat® Perimeter Isolation Strip flush or below the surface of the finished floor or vinyl floor covering.
- Install baseboard or skirting to wall 6 mm minimum above the GenieMat® perimeter strip and floor surface.
- Seal entire perimeter with non-hardening acoustical sealant.

# APPROVED ADHESIVES IN OZ & NZ

## Floor Adhesives

- GenieMat® FAS, GenieMat® FAS2, GenieMat® FASHM
- Taylor Pinnacle®
- Taylor Resolute®
- Taylor MS-Plus Resilient
- Bostik's BEST®
- Henry® 971 PlankPro™

## Thin-Set Materials

- Laticrete® 253 Gold
- Laticrete 254 Platinum
- Bostik Single-Flex®
- ARDEX FB 9 LTM

## Grout Materials

- Laticrete PERMACOLOR® Grout
- Laticrete SPECTRALOCK® Grout
- Bostik Hydroment® Grout
- ARDEX FlexGrout

## Acoustical Sealants

- Tremco Acoustical Sealant
- Pecora AC-20 FTR

NZ  
&  
OZ