



**SOUND
INSULATION**



LVT and Plank over 2mm & 5mm QT Technical Manual

SPECIAL PROCEDURES INSTALLATION & WARRANTY

Manufactured in the U.S.A. by:

ecore™

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TABLE OF CONTENTS

INSTALLATION

Job Site Conditions	3
Substrate Preparation	3
Perimeter Isolation Strip	4
Installation of QT Sound Mat	5
Adhesive & Trowel Recommendations	5
Adhesive and LVT/LVP Installation	5
Adhesive LVT/LVP over QT	7
Adhesive LV/LVP over Substrate	8
Adhesive Data and Coverage	9

WARRANTY

Warranty	10
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2mm and 5mm QT Adhesive Coverage Rate Calculator				
QT	Trowel Size		Coverage Rate Over Standard Substrates	Coverage Rate Over Sound Mats
2mm QT	 1/32" x 1/16" x 1/32" (1 x 1.5 x 1 mm)	Use to secure 2mm QT to substrate and LVT/LVP to 2mm QT	150 to 200 sq. ft./gal	150 sq. ft./gal
5mm QT	 1/16" x 1/16" x 1/16" (1.5 x 1.5 x 1.5 mm)	Use to secure 5mm QT to substrate and LVT/LVP to 5mm QT	100 to 125 sq. ft./gal	100 sq. ft./gal
<p>Coverage rates shown here are for estimating purposes only. Actual jobsite coverage may vary according by application method, substrate, substrate conditions, trowel angle, and actual thickness applied.</p>				

SUBSTRATE PREPARATION

IMPORTANT: Areas to receive flooring must be weather tight and maintained at a minimum uniform temperature of 65° F (18° C) for 48 hours prior to, during, and after installation. Failure to comply could result in flooring failure.

NOTE: Bond tests are recommended.

Step 1: **Concrete** substrate shall be prepared according to ASTM F710 standards. This standard calls for complete removal of all extraneous materials that may affect the adhesive bond. These materials include, but are not limited to, dust, paint, wax, solvents, adhesive residue, curing & hardening compounds, and sealers. If any of these are present, they must be removed prior to installation of flooring materials. Keep in mind that they should be removed mechanically without the use of chemicals, which could also act as a bond breaker for the adhesive.

The concrete should be given a sufficient amount of time to dry, naturally, before the application of adhesives. The moisture content should always be tested using the ASTM F-2170 testing for relative humidity. Relative humidity should result in a level of 80% or lower with diminishing results. If levels exceed these parameters, then the installation should not proceed until the situation has been corrected.

In the event that a moisture mitigation system is required, it must conform to the ASTM F3010 Standard Practice for Two-Component Resin Based Membrane Forming Moisture Mitigation Systems for use Under Resilient Floor Coverings.

NOTE: When using Mapei patching materials, Mapei's Primer T must be used over the surface of the patch before applying adhesive in Step 2 below. Failure to use primer may result in cohesive failure of the patching materials. Primer dilution shall be 2 parts water: 1 part primer.

Step 1: **Gypsum** substrates shall be prepared according to the ASTM F 2419 standards. This standard covers the practice of installation and preparation of the thick poured gypsum concrete underlayments over wood structural panel subfloors in commercial structures, or over concrete floors in commercial structures and preparation of the surface prior to the installation of resilient flooring.

NOTE: Per the ASTM C472 standard, the gypsum substrate shall have a compressive strength of 3000 psi or greater, and a density of 105 pcf.

Before installation of resilient flooring, gypsum must be primed with Mapei's Primer T at a dilution rate of 2 parts water: 1 part primer.

It is crucial that primer is allowed to penetrate deep into the pores of the gypsum. It may be necessary to apply multiple coats.

SUBSTRATE PREP & PERIMETER ISOLATION STRIP

Drying time of gypsum shall be determined using the ASTM F2419 standards, which reference the ASTM C472 and ASTM D4263 standards for moisture content.

It is important for the gypsum substrate to be free of imperfections and that it be level to the equivalent of 3/16" in 10'. If substrate is damaged, it must be flash patched before installation of the resilient floor covering.

Flash patching can be completed using one of Mapei's approved patches or self-leveling materials. Please contact Mapei Technical Support for assistance.

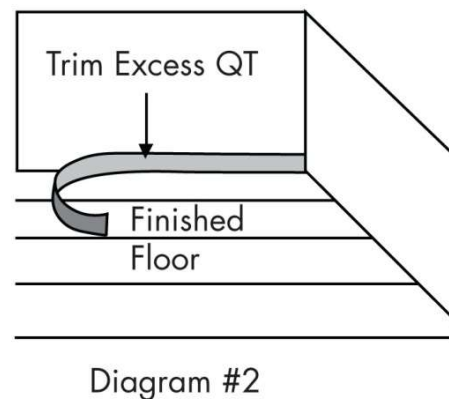
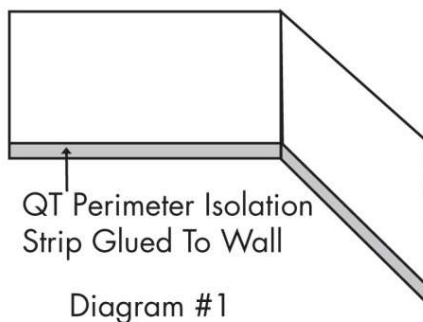
Step 1: Wood subfloors should be double construction, rigid, and free from movement.

Wood subfloors (when installed with grouted floor coverings like tile) must be prepared according to ANSI L/360 standards, as required by the floor covering manufacturer.

NOTE: Particleboard, often called "chipboard," OSB, masonite, and luan are not suitable underlayments.

Step 2: Day 1: It is essential to install the QT Perimeter Isolation Strip before placing and trimming QT impact sound insulation material!

Attach the QT Perimeter Isolation Strip 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).



Temporarily tape the Perimeter Isolation Strip on wall with tape. It will be trimmed flush with the finished floor. (Diagram #2)

INSTALLATION

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.

Remove the shrink-wrap and unroll the Sound Reducer. Shaking material to relax.

Place the QTscu material to be perpendicular to the installation direction of the topping material (see diagram #3).

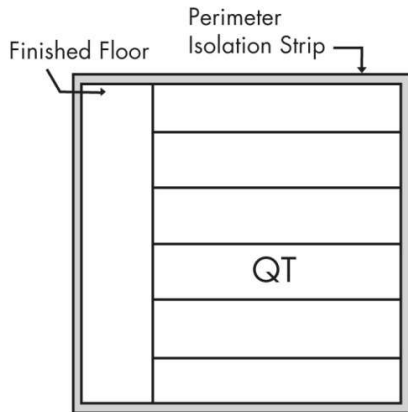


Diagram #3

Adhere QT sound mat with the following trowel:

2MM sound mat – 1/32” x 1/16” x 1/32” trowel using the required E-Grip Evolve.

5MM sound mat – 1/16” square notch trowel using the required E-Grip Evolve.

After laying QT into adhesive bed, roll floor: use a 35 lb. roller for **2MM** QT and a 75-100 lb. roller for **5mm** QT. Allow adhesive to cure for 24 hours before proceeding with **Step 3**.

Step 3: Day 2: Apply LVT/LVP over QT sound mat using trowel size below:

- **2MM sound mat – 1/32” x 1/16” x 1/32” trowel** using the required E-Grip Evolve adhesive. Coverage rate approximately 150 sq ft/gal.
- **5MM sound mat – 1/16” square notch trowel** using the required E-Grip Evolve adhesive. Coverage rate approximately 100 sq ft/gal.

Very Important to follow adhesive application instructions to ensure a successful installation. Ecore cannot be held liable for improper installation techniques.

Areas to receive flooring must be weather tight and maintained at a minimum uniform temperature of 65° F (18° C) for 48 hours prior to, during, and after installation. Failure to comply could result in flooring failure.

NOTE: Adhesive coverages listed are for estimating purposes only. Actual jobsite coverage may vary.

NOTE: Bond tests are recommended.

1. Apply E-Grip Evolve to QT surface using trowel required for each thickness:
 - **2MM sound mat** – Apply LVT/LVP using a **1/32” x 1/16” x 1/32” trowel** using the required E-Grip Evolve adhesive. Coverage rate approximately 150 sq ft/gal.
 - **5MM sound mat** – Apply LVT/LVP using a **1/16” square notch trowel** using the required E-Grip Evolve adhesive. (Coverage rate approx. 100 sq ft/gal.)
2. Work in small sections to install into adhesive bed within the specified ***working time**.
3. Allow adhesive to ****flash** until adhesive valley is clear and ridge is gummy to the touch, approximately 30-45 minutes over 2mm QT, and approximately 90-120 minutes over 5mm QT. (See page 7)
4. Lay planks into the adhesive bed. Work off of the planks to eliminate excess movement.
5. After completing each section within arm’s reach, roll the planks with 100 lb. roller.
6. **NO** foot traffic for a minimum of 48 hours after installation and 72 hours before returning furniture to the surface and light rolling loads.
7. **IMPORTANT** – Chair mats and floor protection **are required**. Ecore cannot be held liable for failure to protect flooring surface.

* **Flash Time:** The waiting time required before installing flooring.

****Working Time:** The window of time for the adhesive to accept flooring.

ADHESIVE INSTALLATION: ADHERING QT ONTO STANDARD SUBSTRATES FOLLOWED BY LVT/LVP ONTO QT

E-Grip Evolve

Premium High-Performance Adhesive for QT Sound Underlayment, Luxury Vinyl Tile and Plank

DESCRIPTION

E-Grip Evolve is a high performance, wet-set adhesive designed for use with Ecore's QT sound underlayment membranes, LVT and Plank.

Application Characteristics over Porous Substrates

	Flash Time	Working Time
Permanent bonding (Rubber)	0 minutes	Approximately 30 minutes

Application Characteristics over Nonporous Substrates

	Flash Time *	Working Time **
Permanent bonding (Rubber)	0 minutes	Approximately 30-45 minutes

Application Characteristics over Sound Mat

	Flash Time *	Working Time **
Permanent bonding (LVT/LVP) over 5mm sound mat using a 1/16" square notch trowel	90-120 minutes or until adhesive valley is clear and adhesive ridges are gummy to the touch	120-165 minutes, or approximately 30-45 minutes after flash time over sound mat
Permanent bonding (LVT/LVP) over 2mm sound mat using a 1/32"x1/16"x1/32" trowel	30-45 minutes or until adhesive valley is clear and adhesive ridges are gummy to the touch	45-75 minutes, or approximately 15-30 minutes after flash time over sound mat

* **Flash Time:** The waiting time required before installing flooring.

****Working Time:** The window of time for the adhesive to accept flooring.

Note: Flash and working times may vary based on temperature, humidity, substrate porosity, trowel size and jobsite conditions.

ADHESIVE INSTALLATION OF LVT/LVP ONTO STANDARD SUBSTRATES

E-Grip Evolve

Premium High Performance Adhesive for QT Sound Underlayment, Luxury Vinyl Tile and Plank

DESCRIPTION
 E-Grip Evolve is suitable for installation of Luxury Vinyl Tile and Plank over other approved substrates. **For installation involving QT sound mats in conjunction with LVT/LVP, please refer to previous page's instructions.**

Application Characteristics over Porous Substrates		
	Flash Time	Working Time
Permanent bonding (LVT/LVP) Use manufacturer's recommended trowel size	15-30 minutes or until adhesive valley is clear and adhesive ridges are wet to the touch	Approximately 15-30 minutes

Application Characteristics over Nonporous Substrates		
	Flash Time *	Working Time **
Permanent bonding (LVT/LVP) Use manufacturer's recommended trowel size	30-45 minutes or until adhesive valley is clear and adhesive ridges wet to touch	Approximately 30-45 minutes



* **Flash Time:** The waiting time required before installing flooring.

****Working Time:** The window of time for the adhesive to accept flooring.

Note: Flash and working times may vary based on temperature, humidity, substrate porosity, trowel size and jobsite conditions.

Limitations
Do not install over substrates containing asbestos
For interior installations only
Do not apply over existing adhesive residue
Use only when substrate temperature is between 65°F and 90°F (16°C and 32°C)
Follow flooring manufacturer's instructions for installation and substrate preparation

ADHESIVE DATA

QT	Trowel Size		Coverage Rate Over Standard Substrates	Coverage Rate Over Sound Mats
2mm QT	 1/32" x 1/16" x 1/32" (1 x 1.5 x 1 mm)	Use to secure 2mm QT to substrate and LVT/LVP to 2mm QT	150 to 200 sq. ft./gal	150 sq. ft./gal
5mm QT	 1/16" x 1/16" x 1/16" (1.5 x 1.5 x 1.5 mm)	Use to secure 5mm QT to substrate and LVT/LVP to 5mm QT	100 to 125 sq. ft./gal	100 sq. ft./gal

Coverage rates shown here are for estimating purposes only. Actual jobsite coverage may vary according by application method, substrate, substrate conditions, trowel angle, and actual thickness applied

PHYSICAL DATA	
Adhesive Type	Vinyl Acrylic Polymer
Antimicrobial	Yes
Color	Off-white
Consistency	Creamy
Density	8.3 lbs/gal (3.77 kg per 3.79 L)
VOC Content	.28 lbs/gal (34 g/l)
Shelf Life	2 years when stored at 73° F (23°C)
Flash point	>212°F (100°C)
pH	7 to 9
Maximum RH (ASTM F-2170)	80% RH diminishing
Freeze/Thaw	Protect from freezing Freeze/Thaw stable up to 5 cycles at 0°F (-18°C)

WARRANTY

Limited Lifetime Warranty

Ecore offers a limited lifetime warranty on the QT brand of Impact Sound Insulation products against defects in material and workmanship, and QT shall meet all published specifications and perform effectively. Ecore warrants that during the warranty period, QT 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, wear due to ultraviolet degradation, and uses and installations that are contrary to QT specifications, recommendations or instructions 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.

Lifetime means for so long as the job installation remains unchanged by the original owner.

The recommendations for applications and installation contained within this document are based on our extensive experience and current technological practice. Ecore's 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 advice given by our sales representatives or applications engineering staff. Please go to www.qtsoundcontrol.com for the most current warranty information.



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