



# **170 Sound & Crack Isolation Mat**

## **Frequently Asked Questions**

### **TDS 405**

#### **170 Sound & Crack Isolation Mat FAQ**

##### **Questions Regarding Sound**

#### **1. What type of sound does 170 Sound & Crack Isolation Mat help to control?**

170 Sound & Crack Isolation Mat reduces impact on a floor from transmitting through to the space below. This sound is classified as Impact Insulation Class (IIC) which is a measurement used to quantify the transmission of impact sound through a floor/ceiling assembly.

#### **2. What IIC Rating is required for many high-rise residential buildings? \***

While the minimum value may change from project to project, based on building owner's requirements or building codes, a typical target is  $\geq 50$  IIC (International Building Code Section 1207.3). The higher the IIC value, the better the sound control performance.

#### **3. Does 170 Sound & Crack Isolation Mat help to minimize sound travelling through air? \***

Airborne sound, or Sound Transmission Class (STC), is controlled mostly by mass of structure. 170 Sound & Crack Isolation Mat, as well as the vast majority of sound control products for tile or stone, contributes no appreciable improvement to isolating airborne sound.

#### **4. How is 170 Sound & Crack Isolation Mat tested for sound control performance? \***

170 Sound & Crack Isolation Mat has been tested per ASTM E2179 "Standard Test Method for Laboratory Measurement of the Effectiveness of Floor Coverings in Reducing Impact Sound Transmission Through Concrete Floors", ASTM E989 "Standard Classification for Determination of Impact Insulation Class (IIC)", ASTM E492 "Standard Test Method for Laboratory Measurement of Impact Sound Transmission Through Floor-Ceiling Assemblies Using the Tapping Machine" and other pertinent standards.

#### **5. What exactly is the $\Delta$ IIC of 170 Sound & Crack Adhesive and what does it mean?**

The delta IIC ( $\Delta$ IIC) of 170 Sound & Crack Isolation Mat is 16 ( $\Delta$ IIC = 16) which is the sound control contribution of the 170 Sound & Crack Isolation Mat, installation materials and tile or stone. The rest of the floor/ceiling construction, any acoustical drop ceiling (if present), insulation, and plenum will provide the remaining value to the IIC.

#### **6. Will 170 Sound & Crack Isolation Mat provide a $\Delta$ IIC of 16 on every project?**

Not necessarily. Keep in mind that the  $\Delta$ IIC of 16 for 170 Sound & Crack Adhesive was established in a laboratory using the tile and installation methods required by the ASTM testing standard. The thickness of the setting materials and type and thickness of tile or stone used on a project may have a beneficial or a negative impact on the final IIC number. Mockup or onsite testing would have to be conducted to determine the final IIC number.

#### **7. Does LATICRETE provide independent laboratory test reports for 170 Sound & Crack Isolation Mat?**

Yes. Please contact LATICRETE Technical Services at 1.800.243.4788 x1235 for a copy of the test reports.

## General Questions

### 8. Why do I need a sound control underlayment like 170 Sound & Crack Isolation Mat?

To prevent the occupants of the space below from hearing sounds made by impacting the floor above (e.g. footsteps, chairs moving, articles dropping, etc...). A sufficient amount of sound control protection can help maintain the peace and maintain/raise property value.

### 9. Where should 170 Sound & Crack Isolation Mat be used?

In most cases 170 Sound & Crack Isolation Mat would be used in multi-family dwellings, especially in high-rise condominium units. In some instances, 170 Sound & Crack Isolation Mat will be used in office buildings with sensitive areas below. Many municipalities require that a minimum IIC and STC be attained, so it is important to check local building code for minimum requirements.

### 10. Why should I choose 170 Sound & Crack Isolation Mat over other sound control products?

- 170 Sound & Crack Isolation Mat is engineered to provide an excellent  $\Delta$ IIC when tested with tile as measured by ASTM E2179.
- 170 Sound & Crack Isolation Mat is only 3 mm (1/8") thick so only a minimal height is added to the installation system.
- Tile or stone can be directly bonded to the 170 Sound & Crack Isolation Mat.
- Manufactured from 100% recycled tires so it is environmentally friendly. In fact, 170 Sound & Crack Isolation Mat contains 89.4% recycled content (88.5% post-consumer recycled content and 0.9% pre-consumer recycled content).
- A component of the LATICRETE® 25 Year Tile & Stone System Warranty (DS 025.0), LATICRETE 10 Year Tile & Stone System Warranty (DS 230.10) and the LATICRETE 5 Year Tile & Stone System Warranty (DS 230.05).

### 11. Does LATICRETE provide a warranty for 170 Sound & Crack Isolation Mat?

Yes. When used as a component of a complete LATICRETE installation system 170 Sound & Crack Isolation Mat will fall under the LATICRETE 25 Year Tile & Stone System Warranty ([DS 025.0](#)), LATICRETE 10 Year Tile & Stone System Warranty ([DS 230.10](#)) and the LATICRETE 5 Year Tile & Stone System Warranty ([DS 230.05](#)). For a copy of these warranties please visit <https://laticrete.com>, contact your local LATICRETE distributor or call LATICRETE Technical Services at 1.800.243.4788 x1235.

### 12. How is 170 Sound & Crack Isolation Mat packaged?

170 Sound & Crack Isolation Mat is packaged in 4 ft. (1.2 m) wide rolls and 37.5 ft. (11.4 m) long totaling 150 ft<sup>2</sup> (13.9 m<sup>2</sup>) and is 3 mm (1/8") thick.

### 13. What usage rating does 170 Sound & Crack Isolation Mat meet?

170 Sound & Crack Isolation Mat is rated "Light" per ASTM C627 "Test Method for Evaluating Ceramic Floor Tile Installation Systems Using the Robinson-Type Floor Tester" as tested by the Tile Council of North America (TCNA). A "Light" rating means 170 Sound & Crack Isolation Mat can be used in light commercial areas (e.g. office space, reception areas, kitchens, and bathrooms) as well as in residential applications.

### 14. Does 170 Sound & Crack Isolation Mat also act as a crack isolation membrane?\*

Yes. 170 Sound & Crack Isolation Mat isolates cracks up to 1/8" (3 mm) and will prevent the cracks from transferring through to the finished floor.

**15. Can I install tile directly to the 170 Sound & Crack Isolation Mat? \***

Yes. Use proper installation methods, the appropriate size notched trowel and suitable LATICRETE® installation materials for installing the tile or stone. LATICRETE recommends the use of 254 Platinum, 257 TITANIUM™ or MULTIMAX™ LITE to install tile over 170 Sound & Crack Isolation Mat.

**16. Can I waterproof a tile or stone installation in which 170 Sound & Crack Isolation Mat is installed?**

Yes. HYDRO BAN® or 9235 Waterproofing Membrane must be installed onto the substrate prior to the installation of the 170 Sound & Crack Isolation Mat. The membrane must be allowed to cure for a minimum of 24 hours @ 70°F (21°C) before the 170 Sound & Crack Isolation Mat can be installed. Note: For temperatures below 70°F (21°C) wait for a minimum of 3 days prior to installing the 170 Sound & Crack Isolation Mat.

**17. What can I use to install 170 Sound & Crack Isolation Mat?**

LATICRETE recommends the use of 254 Platinum, 257 TITANIUM or MULTIMAX LITE to install 170 Sound & Crack Isolation Mat by using a ¼” x ¼” (6 mm x 6 mm) notched trowel. Please see the installation instructions, data sheet ([DS 170.0](#)) or contact LATICRETE Technical Services at 1.800.243.4788 x1235 for more information.

**18. Is 170 Sound & Crack Isolation Mat affected by moisture? \***

No. 170 Sound & Crack Isolation Mat is composed of recycled tire rubber and will not absorb water or be negatively affected by water. Since 170 Sound & Crack Isolation Mat is non-organic it will not act as a food source for mold. However, please note that 170 Sound & Crack Isolation Mat must not be used in submerged applications.

**19. How do I handle saw cut joints and existing cracks in a floor?**

All saw cut joints, existing non-structural cracks and other non-moving joints in the floor must be filled and leveled with 254 Platinum, 257 TITANIUM or MULTIMAX LITE. Allow the mortar to harden prior to installation of the 170 Sound & Crack Isolation Mat. After the installation of the tile or stone, a soft joint must be installed in the tile or stone at the approximate location of the existing, filled joint in the floor.

**20. Do I have to overlap 170 Sound & Crack Isolation Mat to get continuous sound control over large areas?**

No. When 170 Sound & Crack Isolation Mat must meet it is only necessary to butt the edges together. Make sure that there are no voids in the seams where sound can transmit through.

**21. Can 170 Sound & Crack Isolation Mat be used in conjunction with Floor Heat? \***

Yes. Floor Heat can be installed over the top of 170 Sound & Crack Isolation Mat. The proper sequence of materials is (from the top down) – tile/stone, thin-set mortar, electrical mat installed in thin-set mortar, 170 Sound & Crack Isolation Mat, thin-set mortar, substrate.

**22. Does 170 Sound & Crack Isolation Mat provide any insulation value for Floor Heat?**

No. 170 Sound & Crack Isolation Mat has an R value of only 0.1 so it will not be effective as an insulator for radiant heat systems.

**23. Will 170 Sound & Crack Isolation Mat off-gas? \***

No. 170 Sound & Crack Isolation Mat will not off-gas. It meets both the U.S. Environmental Protection Act and State of Washington criteria for Indoor Air Quality when tested as an exposed surface. 170 Sound & Crack Isolation Mat also has [UL GreenGuard Gold certification](#) proving compliance with the strict UL GreenGuard requirements for low VOC emissions.

## **24. What is the maximum moisture vapor emission rate that concrete or mortar beds can have prior to installation of 170 Sound & Crack Isolation Mat?**

170 Sound & Crack Isolation Mat can be installed over concrete that has a moisture vapor emission rate  $\leq 5$  lbs./1,000 ft<sup>2</sup> / 24 hours (283mg/s m<sup>2</sup>) as tested per ASTM F1869 “Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride”, or,  $\leq 75\%$  relative humidity as measured with in situ moisture probes as measured per ASTM F2170 “Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using In-situ Probes”.

\* Please refer to [DS 170.0](#) for more information on 170 Sound & Crack Isolation Mat.

Technical Data Sheets are subject to change without notice. For latest revision, check our website at <https://laticrete.com>  
TDS 410.doc R 19 February 2020



**LATICRETE INTERNATIONAL, INC.** ▪ 1 LATICRETE Park North ▪ Bethany, CT 06524-3423 USA  
800.243.4788 ▪ [support@laticrete.com](mailto:support@laticrete.com) ▪ [www.laticrete.com](http://www.laticrete.com)

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