Enkasonic®

The Original Sound Control Mat

Because one room’s floor is another room’s ceiling.

Renovation | Concrete Construction | Hard Surface Finished Floor Areas
For Upgraded Sound Control, Choose Enkasonic.

Impressive Sound Ratings and More

With the Enkasonic system, airborne and impact sound transmission can be reduced by as much as 20 rating points over concrete, and up to 12 rating points over wood frame construction. Together with a Maxxon® Underlayment, this system creates a void area that is essential to isolating sound.

Enkasonic systems are also:
- Easy to install
- Resilient enough to absorb impact sound
- Ideal for new construction and renovation

Comprehensive Solutions

The Enkasonic system offers proven components for comprehensive sound control applications, including:
- Enkasonic sound control mat
- Maxxon Underlayment
- Perimeter isolation
- Maxxon Reinforcement or Crack Suppression Mat

Keep Your Finished Floor Options, Lose the Noise.

Sound ratings of 45 F-IIC and F-STC and 50 IIC and STC are standard requirements for multifamily housing, limiting interior floor covering choices to basic carpet and pad. With Enkasonic, design possibilities include the full spectrum of floor goods options such as marble, ceramic tile or hardwoods, without sacrificing sound control. Enkasonic can be installed in hard-surface areas only, or throughout the entire floorplan to ensure peace and quiet from impact and airborne noises.

Maxxon Underlayment with Enkasonic

- Creates sound-rated floors with high IIC and STC levels required by IBC, UBC, and FHA for luxury developments.
- Durable and proven solution — the only mat tested after 10 years of use. (Enkasonic retained 97% of original thickness, was as pliable as a new roll, and performed equally to a newly manufactured roll.)
- Increases IIC up to 12 points over wood frame, and IIC up to 20 points over concrete.
- Increases STC rating 6-15 points over bare wood floor system.

Proven Performance

- Documented Sound Tests
- More than 100 UL Fire Rated Designs
- Lightweight and easy to install
- Low deflection rate with high load levels

U.S. Green Building Council LEED® Credit Areas Impacted by Enkasonic Floor Underlayment

<table>
<thead>
<tr>
<th>CREDIT AREA</th>
<th>CREDIT</th>
<th>CATEGORY</th>
<th>HOW REQUIREMENT IS FULLFILLED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovation &amp; Design Process</td>
<td>ID 1</td>
<td>Exemplary Performance</td>
<td>Enhanced Acoustical Living Environment</td>
</tr>
<tr>
<td>Materials &amp; Resources</td>
<td>MR 4</td>
<td>Recycled Content</td>
<td>40% PreConsumer</td>
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<tr>
<td></td>
<td>MR 5</td>
<td>Local/Regional Materials</td>
<td>Enka, NC 28728</td>
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</tbody>
</table>

*Credits may vary depending on project type and Maxxon® products used. Contact Maxxon Corporation for complete information.
Sound Control Case Study

The Metropolitan Condominiums at the Omni San Diego Hotel

Location: San Diego, CA
Contractor: JMI Realty
Architect: Hornberger & Worstell, Inc.
Scope: 80,000 sq. ft. of Enkasonic® and Maxxon® Underlayment installed in 36 luxury condominiums on floors 22 through 32, which overlooks San Diego harbor and the San Diego PETCO Ballpark.

DETAILED DRAWINGS

With a core of fused, entangled filaments attached to a nonwoven fabric, Enkasonic creates a void area between the subfloor and the high-strength underlayment. This system isolates sound waves, reducing airborne and impact noise.

SOUND TESTS

<table>
<thead>
<tr>
<th>Floor System</th>
<th>Topping</th>
<th>Insulation</th>
<th>Resilient Channel</th>
<th>Ceiling Drywall</th>
<th>Floor Coverings</th>
<th>Rating</th>
<th>Test Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wood Joist w/ 5/8” (16 mm) plywood subfloor, 2” x 10” (51 x 254 mm) joist</td>
<td>1/8” (38 mm) Maxxon®</td>
<td>Yes</td>
<td>Yes</td>
<td>¼” (16 mm)</td>
<td>Ceramic Tile</td>
<td>57 IC</td>
<td>IN88-2</td>
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<tr>
<td>Parallel Chord Truss 18” deep, 24” oc plywood subfloor</td>
<td>1/8” (38 mm) Maxxon®</td>
<td>Yes</td>
<td>Yes</td>
<td>¼” (16 mm)</td>
<td>Quarry Tile</td>
<td>59 IC</td>
<td>7004073</td>
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<td>Yes</td>
<td>¼” (16 mm)</td>
<td>Quarry Tile</td>
<td>58 STC</td>
<td>5004024</td>
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<tr>
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<td>Yes</td>
<td>Yes</td>
<td>¼” (16 mm)</td>
<td>Vinyl</td>
<td>55 IC</td>
<td>7004081</td>
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<tr>
<td>1/8” (38 mm) Maxxon®</td>
<td>Yes</td>
<td>Yes</td>
<td>¼” (16 mm)</td>
<td>Floating Wood</td>
<td>57 IC</td>
<td>7004082</td>
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<tr>
<td>1/8” (38 mm) Maxxon®</td>
<td>Yes</td>
<td>Yes</td>
<td>¼” (16 mm)</td>
<td>Glue down Wood</td>
<td>57 IC</td>
<td>7004083</td>
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<tr>
<td>4” Precast Concrete (102 mm) 4” x 2 (102 mm x 61 cm)</td>
<td>5/8” (16 mm) Wonder-Board</td>
<td>No</td>
<td>No</td>
<td>None</td>
<td>Tile</td>
<td>55 F-STC, 52 F-IC</td>
<td>90-155, 90-8</td>
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<td>8” Precast Concrete (203 mm) 8” x 2 (203 mm x 61 cm)</td>
<td>5/8” (16 mm) Wonder-Board</td>
<td>No</td>
<td>No</td>
<td>None</td>
<td>Tile</td>
<td>59 F-STC, 52 F-IC</td>
<td>83-17, 83-1</td>
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<tr>
<td>1/4” (31.75 mm) mortar bed</td>
<td>Yes</td>
<td>Yes</td>
<td>¼” (16 mm)</td>
<td>Tile</td>
<td>61 F-STC, 62 F-IC</td>
<td>82-165, 82-11</td>
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<td>1/4” (31.75 mm) mortar bed</td>
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<td>None</td>
<td>Tile</td>
<td>60 F-STC, 54 F-IC</td>
<td>82-166, 82-12</td>
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<tr>
<td>1/4” (31.75 mm) mortar bed</td>
<td>Yes</td>
<td>Yes</td>
<td>¼” (16 mm)</td>
<td>Vinyl</td>
<td>61 F-STC, 67 F-IC</td>
<td>82-141, 82-9</td>
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<tr>
<td>2 layers - 5/8” plywood</td>
<td>Yes</td>
<td>Yes</td>
<td>¼” (16 mm)</td>
<td>T&amp;G Oak</td>
<td>60 F-STC, 61 F-IC</td>
<td>82-98, 82-7</td>
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<tr>
<td>Hambro D-500 Composite Floor System</td>
<td>1/8” (38 mm) Maxxon®</td>
<td>No</td>
<td>Hat</td>
<td>½” (12.7 mm)</td>
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<tr>
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<td>Hat</td>
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<td>Quarry Tile</td>
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<td>Hat</td>
<td>½” (12.7 mm)</td>
<td>Floating Laminate</td>
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<td>Hat</td>
<td>½” (12.7 mm)</td>
<td>Quarry Tile</td>
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<td>1/8” (38 mm) Maxxon®</td>
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<td>Hat</td>
<td>½” (12.7 mm)</td>
<td>Glue down Wood</td>
<td>51 IC</td>
<td>7004084</td>
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<tr>
<td>TJI® Joist w/ 3/4” (19 mm) T&amp;G plywood subfloor</td>
<td>1/8” (38 mm) Maxxon®</td>
<td>Yes</td>
<td>Yes</td>
<td>2 layers of ¼”</td>
<td>Ceramic</td>
<td>56 F-IC</td>
<td>48-06-01</td>
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<tr>
<td>1/8” (38 mm) Maxxon®</td>
<td>Yes</td>
<td>Yes</td>
<td>2 layers of ¼”</td>
<td>Ceramic</td>
<td>57 F-STC</td>
<td>48-06-02</td>
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</tbody>
</table>

SOUND TEST INFORMATION

F-IIC (Field Impact Insulation Class) sound tests were performed in accordance with ASTM E 1007 and E989. F-STC (Field Sound Transmission Class) sound tests were performed in accordance with ASTM E 336 and E 492. Actual tests and assembly details are available upon request. Maxxon Underlayments and Acousti-Mat II are but single components of an effective sound control system. No sound control system is better than its weakest component. Care must be taken in the installation of all components of construction to ensure the ultimate designed acoustical performance.

* Approved Maxxon Underlayment
Enkasonic® is laid over the entire concrete or wood subfloor. Enkasonic is topped with 1½” (38 mm) of approved Maxxon Underlayment. Installers use a screed to finish the underlayment surface. (If mat is installed only in hard surface areas, the underlayment is poured directly over the subfloor in areas to be covered in carpet and pad.)

Installation Details

**Typical Enkasonic® Installation**

- Gypsum Board*
- Optional, Flexible latex or silicone caulks
- Wall isolation**

**Enkasonic® with Maxxon® CSM or Maxxon® Reinforcement**

- Gypsum Board*
- Optional, Flexible latex or silicone caulks
- Wall isolation**

- Maxxon CSM
  - Passes Extra Heavy ratings tests by the TCNA
  - Water resistant fabric
  - Polymeric fibers
  - 40% pre-consumer recycled content
  - Always a "green" building material
  - May help contribute towards LEED project certification

- Maxxon Reinforcement
  - Excellent durability
  - Light — easy to handle
  - No memory (unlike metal lath)
  - Dimensionally stable in hot weather; not brittle in cold
  - Long rolls reduce installation cost (compared to conventional galvanized metal lath)
  - Can be used over wood, concrete and precast plank
  - Can be used over Enkasonic to reduce thickness of underlayment

Maxxon CSM (Crack Suppression Mat) or Maxxon® Reinforcement

When project conditions require reinforcement of the underlayment, Maxxon CSM and Maxxon Reinforcement provide cost-effective alternatives to metal lath. Conditions such as potential movement of the subfloor — which could cause ceramic tile or other hard surface floor goods to crack — have typically been handled by installing metal lath prior to the underlayment pour. Although metal lath is difficult to install and its cost has been rapidly increasing, there haven’t been any reliable, more cost-effective options until now.

Maxxon Reinforcement or Maxxon CSM may be used:

- To reduce underlayment thickness to 3/4” (19 mm) over Acousti-Mat II or 1” (25 mm) over Enkasonic systems
- As the reinforcement on an Acousti-Mat 3 system
- In conjunction with any Maxxon Underlayment

CSI Specs Online: For customized CSI specs for all Maxxon Products, see www.MaxxonCorporation.com

For more info: 800-356-7887 • Email: info@maxxon.com www.MaxxonCorporation.com

Another superior product from:
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