



# Enkasonic<sup>®</sup>

**Because one room's floor  
is another room's ceiling.**



*The Original  
Sound Control Mat  
for:*

- **Renovation**
- **Concrete Construction**
- **Open Beam 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 underlayments
- Perimeter isolation
- 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 multi-family housing, limiting interior floor covering choices to basic carpet and pad. But 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 nearly all impact and airborne noises.

## Maxxon® Underlayment with Enkasonic

- Creates sound-rated floors with high IIC and STC levels required by ICBO, 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 and STC levels up to 12 points over wood frame, and IIC up to 20 points over concrete.

## Technical Data

### Description

Material composition: nylon  
 Thickness, nominal: .4" (10.2 mm)  
 Density: 4.65 pcf (74.4 kg/m<sup>3</sup>)  
 Color: black with white fabric

Pressure	Deflection
500 psf (2440 Kg/m <sup>2</sup> ):	0.087" (2.21 mm)
1000 psf (4880 Kg/m <sup>2</sup> ):	0.131" (3.327 mm)
2000 psf (9760 Kg/m <sup>2</sup> ):	0.189" (4.801 mm)
4000 psf (19520 Kg/m <sup>2</sup> ):	0.256" (6.502 mm)

### Fire Performance

ASTM E-84, Fuel Contribution 0; Smoke Density and Flame Spread NFPA Class A

### Code Listings

ICC-ES Legacy Report ER-4778

## Proven Performance

- Documented Sound Tests
- More than 80 UL Fire Rated Designs
- Lightweight and easy to install
- Low deflection rate with high load levels
- Durable — chemical and moisture insensitive

## ULC Design Numbers

L003	L511	M500	M503
L201	L512	M501	M508

## UL Design Numbers

J917	L001	L211	L510	L522	L533	L544	L556
J919	L003	L212	L511	L523	L534	L545	L557
J920	L004	L501	L512	L524	L535	L546	L558
J924	L005	L502	L513	L525	L536	L547	L559
J927	L006	L503	L514	L526	L537	L548	L560
J931	L201	L504	L515	L527	L538	L549	L562
J957	L202	L505	L516	L528	L539	L550	L563
J966	L206	L506	L517	L529	L540	L551	L571
J991	L208	L507	L518	L530	L541	L552	L573
J994	L209	L508	L519	L531	L542	L553	L574
K906	L210	L509	L520	L532	L543	L555	



## Sound Control Case Study:

# The Metropolitan Condominiums at the Omni San Diego Hotel

**Location:** San Diego, CA

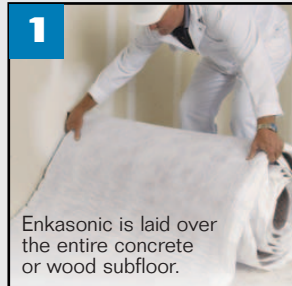
**Contractor:** JMI Realty

**Architect:** Hornberger & Worstell, Inc.

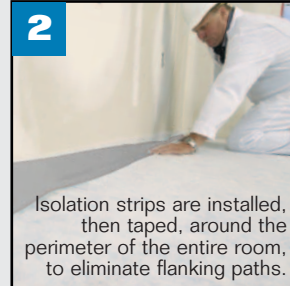
**Scope:** 80,000 sq. ft. of Enkasonic and Maxxon® Underlayment installed in 36 luxury condominiums on floors 22 through 32. Overlooking San Diego harbor and the new San Diego Petco Ballpark.

## Fast, Easy Installation

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.)



**1** Enkasonic is laid over the entire concrete or wood subfloor.



**2** Isolation strips are installed, then taped, around the perimeter of the entire room, to eliminate flanking paths.



**3** Seams between sections of sound mat are adhered with zip-strip or taped.



**4**



**5**

In as little as two hours after the underlayment has been poured, the floor is hard enough to accommodate foot traffic, so light subtrades may continue working. Total drying time varies depending on the type of finished floor goods to be installed, but is generally completed within 10 to 14 days.

## Sound Tests

Enkasonic .4" (10.2 mm)

Floor System	Topping	Insulation	Ceiling Suspended on Channel	Ceiling Drywall	Floor Coverings	Rating	Test Numbers
<b>Wood Joist</b> w/5/8" (16 mm) plywood subfloor, 2" x 10" (51 mm - 254 mm) joists	1½" (38 mm) Maxxon*	Yes	Yes	5/8" (16 mm)	Ceramic Tile	57-IIC	IN88-2
<b>Parallel Chord Truss</b> 2" x 4" (51 x 102 mm) 12" Deep w/3/4" (19 mm) T&G OSB subfloor	1½" (38 mm) Maxxon*	Yes	Yes	5/8" (16 mm)	None	59-FSTC	87-729-13
	1½" (38 mm) Maxxon*	Yes	Yes	5/8" (16 mm)	Carpet & Pad	83-F-IIC	87-729-7
<b>4" Precast Concrete</b> (102 mm) 4" x 2' (102 mm x 61 cm)	7/16" Wonder-Board	No	No	None	Tile	55-FSTC, 52 F-IIC	90-155, 90-8
<b>8" Precast Concrete</b> (203 mm) 8" x 2' (203 mm x 61 cm)	7/16" Wonder-Board	No	No	None	Tile	59-FSTC, 52 F-IIC	83-17, 83-1
	1½" (19 mm) mortar bed	Yes	Yes	5/8" (16 mm)	Tile	61-FSTC, 62 F-IIC	82-165, 82-11
	1½" (19 mm) mortar bed	No	No	None	Tile	60-FSTC, 54 F-IIC	82-166, 82-12
	1½" (19 mm) mortar bed	Yes	Yes	5/8" (16 mm)	Vinyl	61-FSTC, 67 F-IIC	82-141, 82-9
	2 layers - 3/8" plywood	Yes	Yes	5/8" (16 mm)	T&G Oak	60-FSTC, 61 F-IIC	82-98, 82-7
<b>Wood Joist</b> w/5/8" (16 mm) plywood subfloor, 2" x 10" (51 mm - 254 mm) joists	7/16" Wonder-Board	Yes	Yes	5/8" (16 mm)	Tile	62-FSTC, 58 F-IIC	JN 8010
	1½" (19 mm) mortar bed	Yes	Yes	5/8" (16 mm)	Tile	60-FSTC, 55 F-IIC	80-74, 80-1
<b>Parallel Chord Truss</b> 18" deep, 24" oc plywood subfloor	1½" (38 mm) Maxxon*	batt	Yes	5/8" (16 mm)	Quarry Tile	59-IIC	7004073
	1½" (38 mm) Maxxon*	batt	Yes	5/8" (16 mm)	Quarry Tile	58-STC	5004024
	1½" (38 mm) Maxxon*	batt	Yes	5/8" (16 mm)	Vinyl	55-IIC	7004081
	1½" (38 mm) Maxxon*	batt	Yes	5/8" (16 mm)	Floating Wood	57-IIC	7004082
	1½" (38 mm) Maxxon*	batt	Yes	5/8" (16 mm)	Glue down Wood	57-IIC	7004083
<b>Hambro D-500 Composite Floor System</b>	1½" (38 mm) Maxxon*	No	Yes	1/2" (12 mm)	Vinyl	53-IIC	7004079
	1½" (38 mm) Maxxon*	No	Yes	1/2" (12 mm)	Quarry Tile	54-IIC	7004078
	1½" (38 mm) Maxxon*	No	Yes	1/2" (12 mm)	Floating Laminate	55-IIC	7004080
	1½" (38 mm) Maxxon*	No	Yes	1/2" (12 mm)	Quarry Tile	54-STC	5004027
	1½" (38 mm) Maxxon*	No	Yes	1/2" (12 mm)	Glue down Wood	51-IIC	7004084

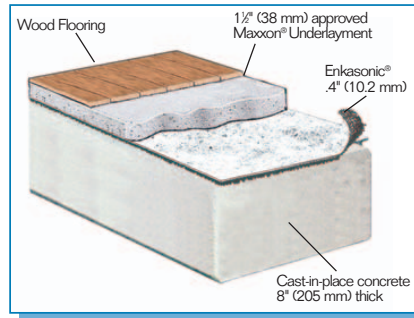
\* Approved Maxxon Underlayment. Field Impact Insulation Class (IIC) sound tests were performed in accordance with ASTM E 1007 and E 989. Field Sound Transmission Class (STC) sound tests were performed in accordance with ASTM E 536 and E 413. Actual tests to the left, plus additional tests, are available upon request. Maxxon Underlayments and Enkasonic are but two 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 components of construction to assure the ultimate designed acoustical performance.



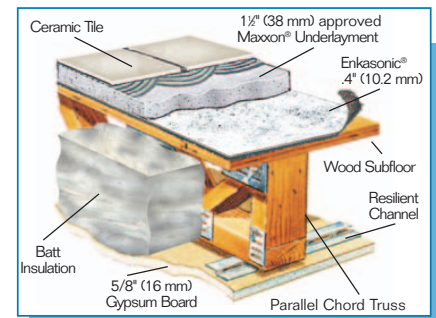
# Detail Drawings

With a nylon 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.

## Enkasonic® Over Cast-In-Place Concrete

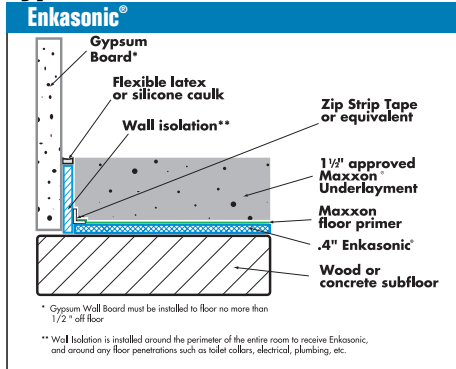


## Enkasonic® over Parallel Chord Truss

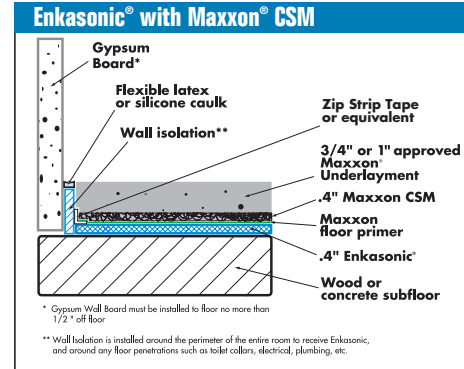


# Installation Details

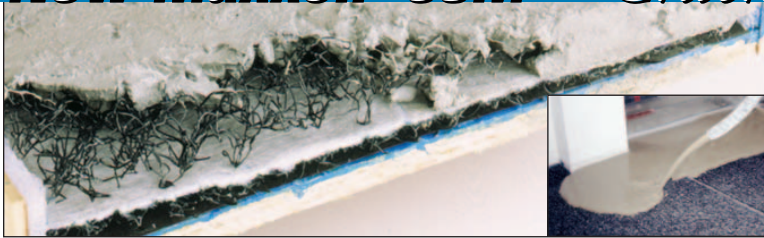
## Typical Installation



## With Maxxon CSM



# New Maxxon® CSM – Crack Suppression Mat



When project conditions require reinforcement of the underlayment, New Maxxon CSM provides a cost-effective alternative 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. Though 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.

Quickly and easily installed, Maxxon CSM saves time and money. Its strong nylon fibers provide an excellent reinforcement for a variety of floor systems.

### CSM with Maxxon Underlayment:

- Requires no crack isolation with ceramic tile
- Provides a better surface for ceramic tile
- Passes residential ratings tests by the Tile Council
- Is Certified by the Ceramic Tile Institute of America
- Maxxon CSM may be used:

*To reduce underlayment thickness to 3/4" (19 mm) over Enkasonic systems*

*To replace metal lath on Enkasonic systems*

*In conjunction with any Maxxon underlayment.*

**CSI Specs On-line:** For customized CSI specs for all Maxxon Products, see [www.MaxxonCorporation.com](http://www.MaxxonCorporation.com)

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2/05



# Enkasonic®

The Original Sound Control Mat

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E-mail: [info@maxxon.com](mailto:info@maxxon.com) • [www.MaxxonCorporation.com](http://www.MaxxonCorporation.com)

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