



Guide Specifications

Enkasonic® — Sound Control Matting

This guide specification must be carefully reviewed and edited by the Architect or Engineer to meet the requirements of the project. Coordinate this section with other specification sections and the drawings.

This product may be specified under several different sections, depending on applications including; Sheathing (06 16 00), Underlayment (06 16 26) and Acoustical Underlayment (06 16 29). Sound Control Matting may also be specified as part of the topping underlayment specifications including; Concrete Topping (03 53 00), Emery-Aggregate Concrete Topping (03 53 13), Iron-Aggregate Concrete Topping (03 53 16), Cast Underlayment (03 54 00), Gypsum Cement Underlayment (03 54 13) and Hydraulic Cement Underlayment (03 54 16).

Part I — General

1.1 Summary

- A. Section includes a sound control material for achieving an STC and IIC rating in excess of 50 to meet building code requirements in commercial and multi-family residential applications.
- B. This work shall consist of furnishing and installation of sound control system, including matting, isolation barrier, acoustical caulk and related work in accordance with these standard specifications and at locations identified on drawings or designated by architect or acoustical consultant. This work shall include all necessary materials, labor, supervision and equipment for installation of a complete sound control system for flooring.

C. Related Sections

- 1. Cast in place concrete: Refer to Division 3
- 2. Insulation: Refer to Division 7
- 3. Joint treatments Refer to Division 7
- 4. Gypsum wall board Refer to Division 13
- 5. Flooring Refer to Division 9
- 6. Mechanical/electrical Refer to Division 15/16
- 7. Other appropriate project-specific specifications sections

- D. Alternates — Products and installation included in this section are specified by alternates. Refer to Division 1 Alternates Section for alternates description and alternate requirements.

1.2 References

- A. General — Refer to Division 1 References Section.

1.3 System Description

- A. Performance Requirements — Provide sound control flooring system which has been manufactured and installed to achieve STC and IIC performance levels that exceed code requirements of not less than 50 for both ratings.

Colbond Inc.
PO Box 1057
Enka, NC 28728
Telephone 800-365-7391
Fax 828-665-5009
www.colbond-usa.com

1.4 Delivery, Storage and Handling

- A. General — Prepare, review, approve and submit specified submittals in accordance with “Conditions of the Contract” and Division 1 Submittals Sections. Product data, shop drawings, samples and similar submittals are defined in “Conditions of the Contract.”
- B. Product Data — Submit manufacturer’s product data with independent testing of actual floor assembly and laboratory results of sound control system. Provide report of tested STC level and IIC level.
- C. Shop Drawings — Submit shop drawings showing layout, profiles and product components, including accessories for sound control system and termination of system.
- D. Samples — Submit verification samples for sound control matting and isolation material.
- E. Quality Assurance/Control Submittals
 - 1. Test Reports Certification — Submit certified test reports from an acceptable independent testing laboratory indicating compliance with applicable results of performance characteristics and physical properties.
 - 2. Certificates (Qualification Data) — Submit product certificates signed by manufacturer certifying materials comply with specified performance characteristics and physical requirements, showing full time quality control. Sound Control system is supplied by single-source manufacturer.
- F. Close out Submittals
 - 1. Warranty — Submit warranty documents specified herein.
 - 2. Project Record Documents — Submit project record documents for installed materials in accordance with Division 1 Project Close Out (Project Record Documents) Section.

1.5 Quality Assurance

- A. Qualifications
 - 1. Installer Qualifications — Installer experienced (as determined by contractor) to perform work of this section, who has specialized in the installation of work similar to that required for this project, who can comply with manufacturer’s warranty requirements, and who is an approved applicator as determined by sound control system manufacturer.
 - 2. Manufacturer’s Qualifications — Manufacturer capable of providing job service during construction, approving an acceptable installer, recommending appropriate application methods and conducting a final inspection of the sound control system.

1.6 Delivery, Storage, and Handling

- A. Ordering — Comply with manufacturer’s ordering instructions and lead time requirements to avoid construction delays.
- B. Packing, Shipping, Handling and Unloading — deliver materials in manufacturer’s original, unopened, undamaged containers with identification labels intact.
- C. Storage and Protection — Store materials protected from exposure to harmful weather conditions and at temperature conditions recommended by manufacturer.

1.7 Project Conditions/ Site Conditions

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Fax 828-665-5009

- A. Project Conditions — Refer to “Conditions of the Contract” for control and responsibility of project site including means, methods and techniques of construction by the contractor.

Part II — Products

2.0 Manufacturers

- A. Acceptable Manufacturer Colbond Inc.
 1301 Sand Hill Drive,
 Enka, NC 28728
 Phone: 800-365-7391 Fax: 828-665-5009
- B. Warranted Sound Control System — Enkasonic and Enkasonic Perimeter Isolation material. Provide system components from a single source supplier in accordance with manufacturer’s warranty requirements.
- C. Standard Product Data

Properties for Enkasonic® Sound Control Matting

Durability: After 10 years - Enkasonic retains 97% of original thickness
 After 10 years - as pliable as a new roll
 After 10 years - performance is equal to newly manufactured rolls

Thickness: 0.4” (10mm)

Weight: 22.9 oz./yd² (776 g/m²) 58.0 lbs./roll (26.3 kg/roll)

Can be handled by one installer.

Technical Data —

Physical Properties

Property	English Units	Metric Units
Core Material	Nylon 6	
Thickness	0.4 in	10.2 mm
Total Weight	23.1 oz/yd ²	783.3 g/m ²
Core Weight	19.5 oz/yd ²	661.2 g/m ²
Fabric Weight	3.6 oz/yd ²	122.1 g/m ²
Fire Rating	NFPA Class A ¹	
Smoke Density	100	
Flame Spread	0	

Will not promote flame spread

Deflection

Pressure	English Units	Metric Units
100 psf	0.028 in	0.711 mm
200 psf	0.046 in	1.168 mm
300 psf	0.061 in	1.549 mm
400 psf	0.075 in	1.905 mm
500 psf	0.087 in	2.210 mm
1000 psf	0.131 in	3.327 mm
2000 psf	0.189 in	4.801 mm
4000 psf	0.256 in	6.502 mm

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Packaging

Property	English Units	Metric Units
Product ID	9110-101-0002	
Core Width	39.0 in	99.1 cm
Fabric Overlap Width	4 in	10.2 cm
Length	111.0 ft	33.8 m
Area	40.0 yd ²	33.5 m ²
Roll Diameter	27.0 in	68.6 cm
Gross Roll Weight	58.0 lbs	26.3 kg

Standards

Property	Report Numbers
Tile Council of America Inc	RF900-89
New York City Dept. of Buildings	MEA 144-89-M
Ceramic Tile Institute	CTI-R-4-113-79
ICBO Report	4778

Other Accessories

Acoustical Sealant — A permanently resilient, non-shrinking latex-based sealant.

Adhesive — Franklin #711, Franklin #1011, or W. W. Henry #116 adhesive for bonding layers of plywood overlay together or equal.

Duct Tape or Cellophane Tape — 2" (5 cm) wide to bond the 39" (1 m) wide strips of Enkasonic together.

Welded, Galvanized Wire Mesh — 2"x2" x 16/16 gauge, 1/2" (13 mm) self-furred.

Enkasonic Perimeter Isolation Material — See data sheet.

2.2 Alternates and Substitutions

A. Alternate — In lieu of providing below specified base bid/contract manufacturer, provide below specified alternate manufacturers. Refer to Division 1 Alternates Section.

1. Base Bid/Contract Manufacturer/Product: Enkasonic Sound Control System, Colbond Inc., Building Products Group.
2. Alternate by Kinetics

B. Substitutions — Refer to Division 1 General Requirements for substitution requirements.

2.3 Related Materials

- A. Concrete: Refer to Division 3
- B. Insulation: Refer to Division 7
- C. Sealant: Refer to Division 7

2.4 Source Quality Control

- A. **Single Source Responsibility** — Obtain all sound proofing materials from single source for required warranty.

Part III — Execution

3.1 Surface Condition

- A. Sub floor shall be structurally sound. Deflection shall not exceed 1/360 of the span, including live and dead loads.
- B. Sub floor shall be dry and free of debris.

3.2 Installation

A. Perimeter Isolation Strip

1. Install Enkasonic Perimeter ISO at the perimeter of the entire sub floor (including door frames), and around any protrusions through the installation. This procedure isolates the Enkasonic floor system from the walls in order to create an acoustical break which will minimize the transmission of sound laterally from the "floating floor" to the walls. Also, the perimeter isolation material provides space for possible expansion of the finished flooring.
2. Adhere the foam perimeter isolation strip to the wall with construction adhesive applied as close as possible to the top of the foam strip.

B. Enkasonic Sound Control Matting

1. Lay the Enkasonic directly over the sub floor (or waterproofing membrane, if applicable) **with the black mesh down, white fabric side up**. Push the Enkasonic up tightly to the isolation barrier previously installed around the perimeter of the floor.
2. If hardwood flooring and plywood floating slab are to be used, place a layer of roofing felt on the sub floor prior to the Enkasonic.
3. If the waterproofing membrane is mopped-on, put a layer of roofing felt over the membrane before installation of the Enkasonic.
4. Butt adjoining edges of the black Enkasonic mesh together. Then tape [Duct Tape or 2" (5 cm) wide Cellophane Tape] the 3" (7.5 cm) wide longitudinal fabric overlap snug to the adjoining Enkasonic strip. The taping procedure seals the overlap seams and keeps any residual material from getting into the Enkasonic mesh. Tape seam at intersection of Perimeter Isolation and Enkasonic.
5. Enkasonic is free-floating. Do not attach it to the sub floor with nails, screws, staples, glue or any type of attachment.

Specifier Note: It is necessary to install an overlay over the Enkasonic to receive and support the finished flooring. The overlay varies with the type of finish flooring. The overlays are: 1 1/4" (3.2 cm) mortar bed, 7/16" (11 mm) WonderBoard®, 1/2" (4 cm) lightweight Concrete [1800 PSI (12.4 MPa)], 1 1/2" (4 cm) Gypsum [2000 PSI minimum (13.8 MPa)], or two layers of minimum 1/2" plywood. Specific installation details are described in our installation bulletins.

C. Finish Flooring

1. After the finished flooring is installed, trim the perimeter isolation barrier to 1/4" (6.5 cm) below the finished flooring. Fill the groove with a bead of acoustical or elastomeric sealant. Do not allow hard grout to come in contact with the wall. If the floor is carpet or vinyl, trim the perimeter isolation barrier flush with the surface before the finished flooring is installed. Shim the molding to

1/16" to 1/32" (1.6 to 0.8 mm) above the finished flooring preventing a transmission path for sound between the finished floor and wall.

2. If a flat base is adhered to the wall, space it 1/8" (3.2 mm) up from the tile surface, and run a bead of acoustical sealant into the void.
3. If a cove base is used, fill the joint between the last course of floor tile and the base with acoustical sealant.

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