

Enkasonic[®]

Sound Control Matting Installation Instructions

These suggestions represent generally accepted procedures for successful installation of Enkasonic 9110. These instructions may be followed, modified, or rejected by the owner, engineer, contractor or their representative since they, not Colbond, Inc. are responsible for planning and executing procedures appropriate to a specific application.

Subfloor and Site Preparation for All Installations

Subfloor should be clean and level. Thoroughly check the subfloor, fill in any open cracks and remove any residue that would interfere with the Enkasonic. Deflection should not exceed L/360 of the span, including expected live and dead loads.

If a waterproofing system is to be used, verify that the subfloor is properly sloped to the drain weep holes. Minimum recommended slope is ¼" (6.5mm) per foot. Verify that the waterproofing membrane is a load bearing membrane.

Enkasonic Floor System Installation Steps

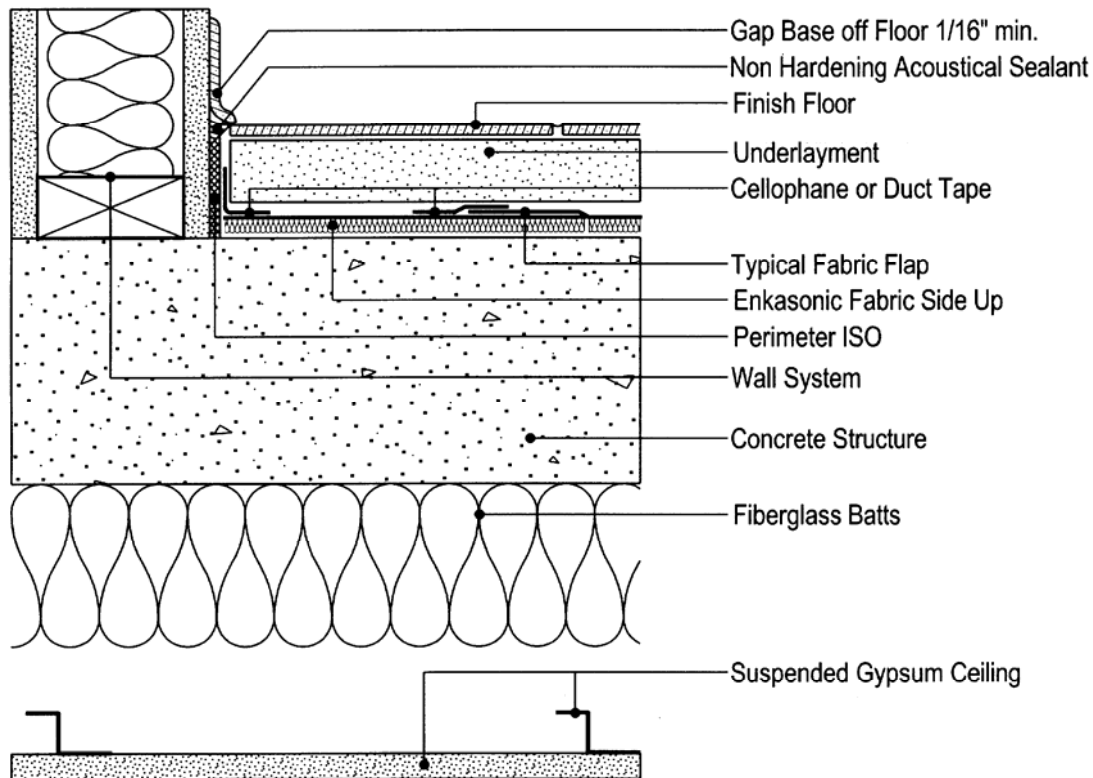
1. Install the Perimeter Isolation (ISO) material to the base of the wall and around the perimeter of any protrusion through the floor system, such as floor drains, columns, pipes, electrical conduits, etc. Apply acoustical sealant to the lower 1" backside of the perimeter isolation barrier. Firmly press and adhere the isolation barrier to the wall or vertical partition (including door frames.) If mechanical fasteners are used, fasten in the top area, which will be trimmed off upon completion of the floor.
2. Lay the Enkasonic directly over the subfloor (or waterproofing membrane if applicable) with the *black core down, white fabric side up*. The Enkasonic should be pushed up tightly to the isolation barrier previously installed around the perimeter of the floor. The Enkasonic must fit snugly against the perimeter isolation barrier.
3. Butt the black core of the Enkasonic together. Glue or tape (duct tape or 2" wide cellophane tape) the 3" fabric over the adjoining piece of Enkasonic. There must be no gap between adjacent Enkasonic strips. (Taping of joints is not required for a plywood floating floor.)
4. Tape the seam / joint where the Enkasonic touches the Perimeter ISO material. (Not required for a plywood floating floor)
5. Apply the underlayment directly over the Enkasonic.

A. Lightweight Concrete Underlayment - (Refer to Detail 1)

Install reinforcing mesh or Enkamat 7918R (fabric side down) if required by designer.

Pump lightweight concrete directly on to the white fabric. Concrete must be a minimum of 1" (3.0cm) thick, and have a minimum 28 day compressive strength of 1800. Verify that the slab is 1000 psi (6.9 Mpa) minimum before proceeding to next step.

Detail 1



1

B. Gyp-Crete[®], Rapid Floor[®], Firm-Fill[®] or LevelRock[®] Underlayment - (Refer to Detail 1)

The white fabric on the upper surface of the Enkasonic *must* be sealed to prevent any Gyp-Crete from flowing into the nylon core and compromising the acoustical isolation.

For a thin topping application (minimum 3/4") install Enkamat 7918R (fabric side down) on top of the Enkasonic 9110 Mat.

Install Floor Primer undiluted and sprayed at a rate recommended by gypsum underlayment manufacturer. After the Floor Primer dries (becomes tacky) begin pumping the gypsum topping to a minimum depth of 1 1/2" (3.8cm) over Enkasonic. Pump the topping at a 5" to 6" (1.25 to 15.5cm) slump. Ensure rakes are set up for 1 1/2" (3.8cm.)

C. Mortar Bed Underlayment - (Refer to Detail 1)

Follow Tile Council of America Handbook Method F111: Cement Mortar, Cleavage Membrane, over a Concrete subfloor.

Install reinforcing mesh or Enkamat 7918R (fabric side down) if required by designer.

Use a 1 1/4" (32mm) mortar bed with a mix of one part Portland cement to 4-5 parts damp sand by volume. Portland cement as per ASTM C-150, Type 1, sand as per ASTM C-144.

After the mortar bed has been leveled to the proper plane, moist cover cure for 24 hours before the finished floor installation. The maximum variation in the slab shall not exceed 1/4" (32mm) in 10' (3m.)

Keep all traffic off of the fresh mortar bed for at least 72 hours unless the "wet set" method (ANSI A108.1) is used.

Caution: Enkasonic is a resilient material and may cause difficulty during installation with the "wet set" method. Consult your Colbond Inc. representative prior to proceeding.

D. Wonder-Board® Underlayment - (Refer to Detail 1)

Wonder-Board® should be installed only when the ambient temperature within the building is above 55° F (13° C.) Adequate ventilation should be provided to carry off excess moisture during installation.

Install Wonder-Board® so joints are *not* placed directly over an Enkasonic edge-butt joint. It is recommended that Wonder-Board® joints paralleling the underlying Enkasonic joints be offset a minimum of 8-10 inches (20.5 to 25.5cm.) Note: Wonder-Board® joints will have to pass over Enkasonic joints at right angles in order to complete the Wonder-Board® pattern.

Snap chalk lines onto the white Enkasonic fabric marking the joint placement of the Wonder-Board® panels. The Wonder-Board® panels should be patterned to allow a ¼" (6.5mm) gap between the units.

Prepare latex Portland cement slurry, thick in consistency. Dip 2" wide fiberglass tape into the slurry and center it on chalk lines.

Apply additional slurry on top of the tape. For added protection, it is recommended that a light skim coat of the latex Portland cement slurry be troweled approximately 1.5" (4cm) at the edge of all four sides of the Wonder-Board® units before laying Wonder-Board® over the tape. Lay and position the Wonder-Board® sheets over the slurried tape in a timely manner leaving a minimum ¼" (6.5mm) gap. Walk on the edges of the Wonder-Board® units forcing slurry into the joint gap. Fill the remainder of the joint gap with slurry from the top of the joint.

Avoid applying too much pressure when filling the joint from the top, excessive pressure may cause a ridge which could develop on the underside of the Wonder-Board® panel creating an uneven surface and a potential plane of weakness.

Lay another strip of the Wonder-Board® fiberglass tape directly over the joint. Trowel a very thin skim coat of latex Portland cement over the tape creating a smooth surface for bonding the tile. If the Wonder-Board® is uneven prior to the joint bond taking set, light loads (box of tiles, etc.) placed at different locations is a method to level the panels.

Allow 48 hours for joints to harden before installing finish floor.

E. Plywood Floating Floor Underlayment - (Refer to Detail 2)

After the Enkasonic is installed, place one layer of ½" (13mm) plywood APA RATED SHEATHING, on top of the matting. Offset the joints (seams) and leave a small gap between sheets of 1/16" or 3/32" (1.5mm or 2.5mm) in order to prevent any expansion of the plywood from buckling the layer.

Note: If the subfloor has an unusual amount of surface distortion, cut the plywood sheets into smaller units such as 4' x 4' or 2' x 2' (120 x 120 cm or 60 x 60cm) panels. Then, lay the smaller panels in an offset joint pattern so that the grain of each panel is perpendicular to the grain of the adjacent panel.

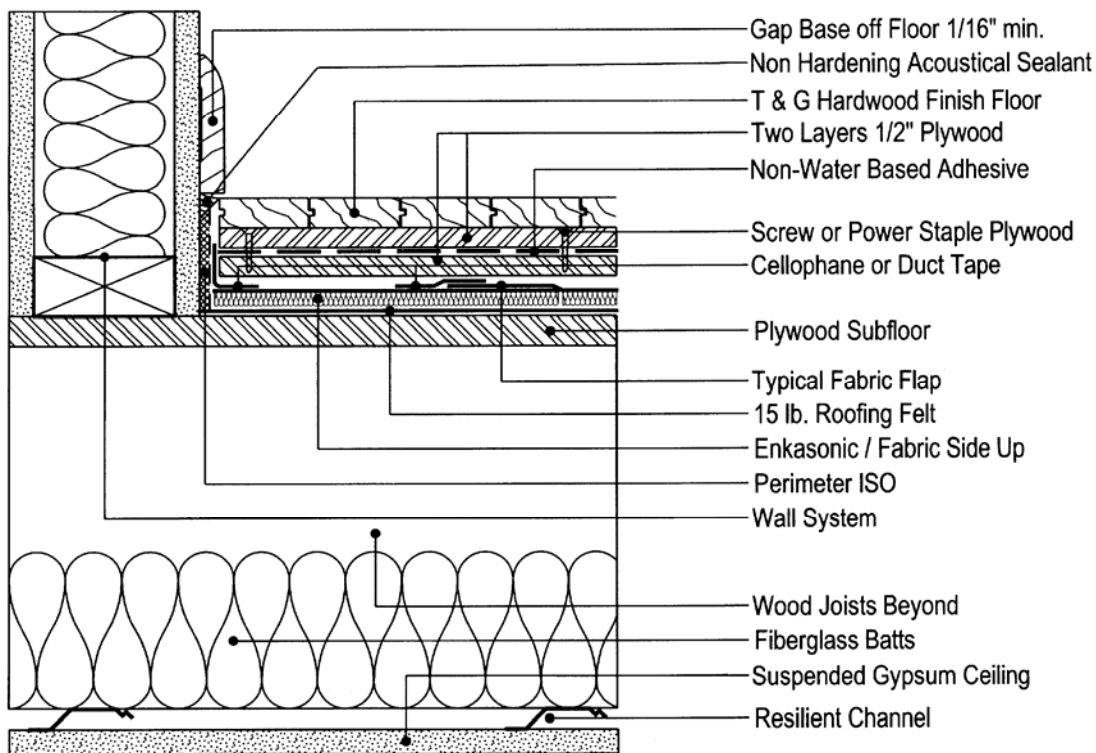
Tape the joints with duct tape in order to keep the construction traffic from moving the panels and to prevent any adhesive, which will be used in the following step from infiltrating into the expansion gaps between adjacent panels.

Apply a non-water-based adhesive to the top of the first plywood layer. Then place a second layer of ½" (13cm) plywood 90° to the first layer (offset so that the seams do not line up) and then screw the center and corners of this top layer of plywood to the bottom layer of plywood. This top plywood layer should be constructed with full sheets.

Note: If the initial layer of plywood consisted of panels rather than full sheets, the top layer of full plywood sheets should be positioned at 45° to the direction of the bottom layer. This will stiffen the 2-layer floating composite to about the same rigidity as 2 layers of full sheets.

In lieu of using wood screws, the two layers may be fastened together by power stapling in a 6 inch (15.5 cm) pattern using staples with minimum 1" (2.5cm) wide crown. *Do not penetrate into the Enkasonic or subfloor with either wood screws or staples.*

Detail 2



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Finish Floor & Trim for All Installations

1. Install finish floor material: Hardwood, Ceramic Tile, Stone, Marble, Vinyl, Carpet, or Wood Parquet.
 2. Trim Perimeter ISO ¼" below finish floor. (If finish floor is carpet or vinyl trim the Perimeter ISO flush with the surface *before* the finished flooring is installed.)
 3. Apply non-hardening acoustical sealant or elastomeric sealant to top of Perimeter ISO filling the groove. Do not allow hard grout to come in contact with the wall.
 4. Install baseboards if desired. If a flat base is adhered to the wall, space it 1/16" to 1/8" up from the finished flooring and run a bead of acoustical sealant into the void. If a cove base is used, fill the joint between the last course of finished flooring and the base with acoustical sealant.
- *For complete installation instructions for each underlayment type please contact Colbond, Inc., P.O. Box 1057 Enka, NC 28728 Toll Free: 800-365-7391; email: enka-engineered@colbond.com; web:www.colbond-usa.com*