

**440 SOUND BARRIER®**  
and N.C.F.R. Homasote®**Ceiling Applications**

## Ceiling Construction

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*Provide framing or furring at maximum 16" o.c. regardless of 440 SoundBarrier® or N.C.F.R. Homasote® panel thickness. All panel edges must fall on framing members. The 8' side of the Homasote panel must be installed parallel to floor joists. If left exposed 440 SoundBarrier may be painted with a quality latex based primer and finish paint applied by brush and/or roller. DO NOT SPRAY PANELS.*

## Homasote Installed To Ceiling Joists

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- 1) Screw Homasote panels into ceiling joists using standard drywall screws of sufficient length to penetrate a minimum of 3/4". Allow for 3/16" expansion joint at all Homasote edges. The 8' side of the Homasote panel must be installed parallel to floor joists.
- 2) Screw Homasote panels 4" - 6" o.c. along panel edges and 10"-12" o.c. at intermediate supports.
- 3) Install resilient channels (or equal) spaced 24" o.c. over Homasote panels. Use sufficient length screws to penetrate through the panels and into ceiling joists a minimum of 3/4".
- 4) Install gypsum wallboard to resilient channels as per manufacturer's installation instructions.

\*If resilient channels are not installed, the gypsum wallboard must be installed, staggering all seams, over the Homasote panels and screwed into the ceiling joists as per gypsum wallboard manufacturer's installation instructions.

## Resilient Channels Installed To Ceiling Joists

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- 1) Install resilient channels (or equal), spaced a maximum of 16" o.c., to ceiling joists. Use sufficient length screws to penetrate into the ceiling joists a minimum of 3/4"
- 2) Screw Homasote panels using standard drywall screws directly into resilient channels. Allow for 3/16" expansion joint at all panel edges.
- 3) Screw Homasote panels 4" - 6" o.c. along panel edges and 10"-12" o.c. at intermediate supports.
- 4) Gypsum wallboard is to be installed, staggering all seams, over the Homasote panels and screwed into the resilient channels as per gypsum wallboard manufacturer's installation instructions.

# 440 SoundBarrier® SPECIFICATIONS

## PART 1 GENERAL

### 1.1 Section Includes

- A. Sound-deadening acoustical flooring systems.

### 1.2 References

- A. ASTM E 84– test method for surface burning characteristics of building materials.
- B. ASTM D 1037–test methods of evaluating properties of wood-base fiber and particle panel materials

### 1.3 Submittals

- A. Submit under provisions of section 01300.
- B. Product data: manufacturer's catalog data, detail sheets, and specifications.
- C. Quality assurance/control submittals:
  - 1. Manufacturer's installation instructions.

### 1.4 Quality Assurance

- A. Manufacturer's qualifications:
  - 1. Minimum 10 years experience in producing sound-deadening boards of the type specified herein.

### 1.5 Delivery, Storage, and Handling

- A. Deliver materials in manufacturer's original packages.
- B. Inspect the materials upon delivery to assure that specified products have been received.
- C. Report damaged material immediately to the delivering carrier and note such damage on the carrier's freight bill of lading.
- D. Store materials in a dry place, indoors, or on raised platform protected from weather damage.

## PART 2 PRODUCTS

### 2.1 Manufacturers

- A. Acceptable manufacturer: Homasote Company, 932 Lower Ferry Road, West Trenton, N.J. 08628. Telephone: 800-257-9491 or 609-883-3300, Sales Department, Ext. 1500, Technical Support, Ext. 1332, Fax 609-883-3497. Web site: [www.homasote.com](http://www.homasote.com). For a local Homasote Company sales rep call the Sales Department, Ext. 1500.
- B. Requests for substitutions will be considered in accordance with provisions of section 01600.
- C. Substitutions: not permitted.
- D. Provide all sound-deadening boards from a single manufacturer.

## 2.2 Materials

- A. Sound-deadening boards: Homasote 440 SoundBarrier®; physical properties as follows:
  - 1. Thickness: 1/2 inch (13mm), 5/8 inch (16mm), 3/4 inch (19mm).
  - 2. Density: 26-28 pcf (416-448 kg/cubic m).
  - 3. Tensile strength: 450-700 psi (3,100-4,830 kPa).
  - 4. Hardness (Janka Ball): 230 lbs. (104 kg).
  - 5. Water absorption by volume; ASTM D 1037:
    - a. 2 hour immersion: 5 percent maximum.
    - b. 24 hour immersion: 15 percent maximum.
  - 6. Expansion, 50 to 90 percent relative humidity: 0.25 percent.
  - 7. R-value: 1/2 inch 1.2 (0.021), 5/8 inch 1.33, 3/4 inch 1.4.
  - 8. Flame spread: Class III (or C).
  - 9. Noise reduction coefficient: 0.20.

## 2.3 Accessories

- A. Adhesive: APA AFG-01 approved.
- B. Angular thread nails: length as required to penetrate a minimum of 3/4 inch (19mm) into sub-floor.
- C. Screws:
  - 1. Coarse thread drywall type wood screw, length as required to penetrate 3/4 inch (19 mm) into sub-floor.

## PART 3 EXECUTION

### 3.1 Examination

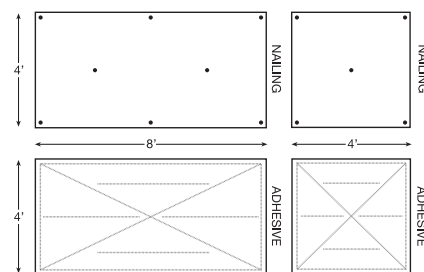
- A. Examine substrates upon which work will be installed.
- B. Verify framing member spacing complies with manufacturer's requirements depending on substrates and installation methods.
- C. Verify environmental conditions are, and will continue to be, maintained in accordance with manufacturer's recommendations.
- D. Coordinate with responsible entity to perform corrective work on unsatisfactory substrates or conditions.
- E. Starting work by installer is acceptance of substrates and environmental conditions.

## 3.2 Preparation

- A. Follow manufacturer's instructions by separating and allowing Homasote 440 SoundBarrier® to be exposed to environmental temperature and humidity conditions for not less than 24 hours before start of installation.
- B. 440 SoundBarrier® panels must be installed in a clean, dry condition. DO NOT INSTALL WET PANELS. It is essential to make every effort to prevent water from ponding on installed panels. 440 SoundBarrier® panels must be thoroughly dry prior to closing in the structure.

## 3.3 Installation

- A. Follow manufacturer's instructions for cutting and installation of Homasote 440 SoundBarrier®.
- B. Over wood sub-floors: use 440 SoundBarrier®:
  - 1. Apply 4 by 8 foot (1.219 x 2.438m) panels on approved sub-flooring.
  - 2. Using all approved APA sub-floor adhesive meeting APA-AFG-01 specifications, apply a 3/8 inch bead of adhesive. Holding back 3/4 inch from panel edges and in an "X" pattern within the field as shown in the "nailing and adhesive pattern."



- 3. Allow 3/16 inch (4.7mm) space at panel joints, and 3/8 inch (9.5mm) space along walls and partitions.
- 4. Use proper length ring shank nails or screws to penetrate sub-floor material 3/4 inch minimum (19mm). Follow nailing pattern in diagram.
- 5. If omitting adhesive, panels must be nailed or screwed 6 inch o.c. along panel edges and 10 inch o.c. throughout the field of the board.
- 6. Hold back nails or screws 3/8 inch (9.5mm) from panel edges.

## 3.4 Adjusting and Cleaning

- A. Replace panels that cannot be repaired.

To make sure you have the most current installation instructions visit <http://www.Homasote.com/installation> to see if newer instructions are online. If online is newer, print out and use the Internet version. These instructions were printed December 21, 2005.