

SPECIFICATIONS and INSTRUCTIONS



# homasote

## 4-WAY FLOOR DECKING

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**Installation Instructions**  
**Homasote Company 4-Way® Floor Deck**

**PRODUCT DESCRIPTION**

Homasote Company's 4-Way® Floor Deck ("4-Way") is a structural, sound-deadening sub-floor and draft-free resilient underlayment used in low-rise applications and single family homes. It consists of multiple plies of 440 SoundBarrier® permanently bonded to form tough, easy-to-handle panels. Installed as recommended, 4-Way adequately supports uniform live loads up to 100 lbs/sq.ft., based on a maximum deflection of 1/360 of the span.

**Sizes (nominal):** 2' x 8' or 4' x 8'

<b>Thickness</b>	<b>1-11/32" 4-Way</b>	<b>1-3/4" 4-Way</b>
Joist Spacing	16" o.c.	24" o.c.
Wt. per Square Foot	3.0 lbs.	4.1 lbs.
Actual Width 2' x 8'	1'-11 1/8"	1'-11 1/8"
Actual Width 4' x 8'	3'-11 1/8"	3'-11 1/8"
Actual Length	7'-11 7/8"	7'-11 7/8"

All 4-Way panels have square-cut ends and T&G on long edges. Estimate 65 panels (2' x 8') or 32 panels (4' x 8') per 1,000 square feet of floor.

**CODES and COMPLIANCES:**

ICBO Report 1016  
FHA Materials Release 1150a  
CMCH Report No. 11924

Flame Spread - Class III (or C) ASTM E 84

1 Hour Full-Scale Fire Performance, Tested in Accordance with ASTM E119-98 by Southwest Research Institute, Project No. 01-2271-001; UL Floor Design Number L528 - 1-3/4" 4-Way.

1 Hour Full-Scale Fire Performance, Tested in Accordance with ASTM E119 by Factory Mutual Corp., Project No. 16738.40; UL Floor Design Number L517 – 1-11/32" 4-Way

## **GENERAL REQUIREMENTS:**

Like all quality wood products, Homasote 4-Way will expand and contract with changes in relative humidity. Dimensional changes can occur in the amount of .25% with variation from 50% to 90% relative humidity.

### **Construction Site Storage:**

Protect 4-Way, as any valuable building product, by storing on a dry platform under shelter. Keep wrapped in weather-capped shipping units until ready for use. If no shelter is available, stack units on skids 8" above grade. Panels must be installed in a dry condition. Every effort should be taken to prevent water ponding on exposed 4-Way panels.

### **Framing:**

Use cross bridging to secure floor joists. Solid bridging is not recommended. Ends of 4-Way **must bear on solid framing** without breaks and at all points where framing changes direction. Wall and partition plates can be applied directly over 4-Way, across floor joists. **If partition parallels floor joists, adequate support framing must be installed under partition plate.**

## **INSTALLATION:**

Homasote 4-Way® Floor Deck **must** be installed to accommodate expansion and contraction. In large area platforms, **provide 1/2" gap for every 50' of length.** Trim ends if necessary to assure support. **Provide 1/2" gap at all abutting walls.** Stagger end joints on alternate joists. Do not butt squared ends tightly, leave 1/8" gap. Snug all T&G edges together tightly.

Complete nailing of the panels must be within the glue manufacturer's specified time limit. All nails must be dimpled 1/16" below surface.

Nail each panel completely in accordance with pattern and sequence before placing and proceeding with the next panel.

Note: In projects using the "post and beam" construction technique (common in straw-bale home construction), provisions must be made for the weight bearing columns to rest on bulwarks, not the 4-Way deck to prevent point load compression in the deck.

### **Glue-Nail Method:**

Apply continuous 3/8" beads of APA approved decking adhesive (Liquid Nails or PL400) to enough framing for one or two panels at a time. Apply two parallel beads to joists supporting butt joints. Apply a continuous bead into groove of 4-Way T&G.

Position panel and drive **three** (for 2' wide panels) or **five** (for 4' wide panels) 3" long, 9 ga. annular thread with 3/8" head into centers of each joist, starting at mid-panel and nailing out to ends. Keep nails back 3/4" from ends, toe-nailing if required.

NOTE: Homasote Company recommends the application of its decking with the glue-nail method. The Homasote Company cannot warranty product performance if alternate methods are used.

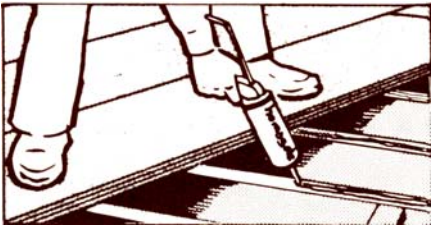

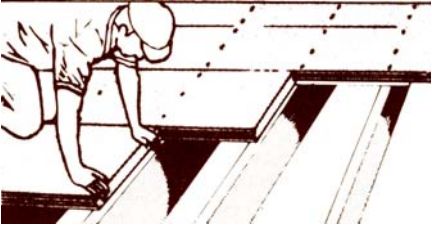

### **INSTALLATION INSTRUCTIONS:**

#### **See 4-way® Floor Deck Installation Illustrations On Next Page**

1. Apply adhesive bead on each joist with double bead wherever panel joints occur. Also apply a bead in the groove of the T&G edge. Adhesives such as Liquid Nails® or PL400® are recommended.
2. Place panel with long edge at right angle to joists and with top or bottom in proper position as marked. Stagger joints on alternate joists and allow 1/8" gap between ends of panels.
3. Support all ends on joists or on additional blocking. Support without breaks between framing members and at all points where direction of joists changes.
4. Snug fit tongue and grooved sides together. Hammer panel with block of cut off section to avoid damage to tongue
5. Glue and nail. Drive nails 1/16" below surface. NOTE: Nailing sequence **must be maintained** and completed before next panel is set in place.
6. For best results, apply glue, position panel and drive nails into center of joist. At panel ends, toe-nail 3/4" from edge into center of joist.
7. Partition walls may be installed over 4-Way - across floor joists. Nail plates through decking into joists using 20d nails. For partitions parallel to joist, **install adequate support framing under plate**. For best results (stronger and more squeak resistant) use nails **and** adhesive.

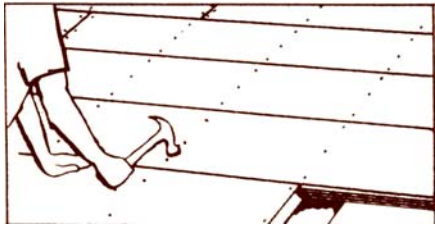



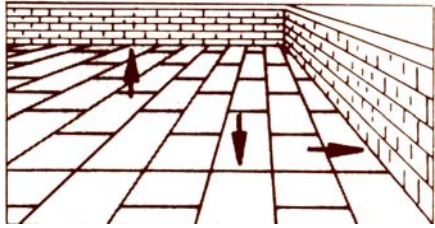
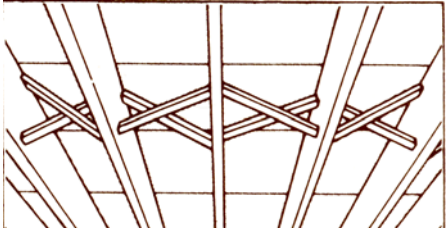
8. Fill cut-out voids with mineral wool or acoustical grade fiberglass insulation. Use metal flange for toilet installation. Cut clearance hole to allow enough material for bolting flange to blocking around soil pipe.
9. Where long runs are involved, allow 1/2" expansion per 50' of length, allow 1/2" expansion at perimeter of abutting walls.
10. Brace joists with diagonal bridging. After all decking is in place; securely nail lower ends of bridging to joists.

**4-way® Floor Deck Installation Illustrations**  
(Please Read Steps 1-10 Beginning On Page Above)

	
<p>1) Apply adhesive bead on each joist with double bead wherever panel joints occur. Also apply a bead in the groove of the T&amp;G edge.</p>	<p>2) Place panel with long edge at right angle to joists and with top or bottom in proper position as marked. Stagger joints on alternate joists and allow 1/8" gap between ends of panels.</p>
	
<p>3) Support all ends on joists or additional blocking. Support without breaks between framing members and at all points where direction of joists changes.</p>	<p>4) Snug fit tongue-and-grooved sides together. Hammer panel with block or cut off section to avoid damage the tongue.</p>

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**4-way® Floor Deck Installation Illustrations**  
(Continued From Previous Page)

	
<p>5) Glue and nail according to diagram pattern &amp; sequence. Drive nails 1/16" below surface. Note: Nailing, sequence must be maintained and completed before next panel is set in place.</p>	<p>6) For best results, apply glue, position panel and drive nails into center of joist. At panel ends, toe-nail 3/4" from edge into center of joist.</p>
	
<p>7) Partitions may be installed over floor decking - across floor joists. Nail plates thru decking into joists using 20 d. nails. For partition parallel to joist, install adequate support framing under plate.</p>	<p>8) Fill cut-out voids with mineral wool. Use metal flange for toilet installation. Cut clearance hole to allow enough material for bolting flange to blocking around soil pipe.</p>
	
<p>9) Where long runs are involved, allow 1/2" expansion per 50' of length, allow 1/2" expansion at perimeter of abutting walls.</p>	<p>10) Brace joists with diagonal bridging after all decking is in place; securely nail lower ends of bridging to joists.</p>

**FLOOR COVERING APPLICATION RECOMMENDATIONS:**

Where a perfectly smooth, flat sub floor surface is required, light-touch sanding may be necessary because of irregularities in framing members.

In kitchens, bathrooms, laundry rooms, etc. where tile or sheet vinyl covering will be applied, 4-Way must be completely covered with 3/8"

thick, 4'X4' plywood of suitable underlayment grade before fixtures are mounted.

### **Resilient Tile, Sheet Vinyl & Glue-Down Carpet:**

Apply 4' x 4' sheets of 3/8" plywood, underlayment grade as specified by the American Plywood Association ("APA"), using APA-approved decking adhesive as directed. Joints should not coincide with 4-Way joints. Use 1 1/2" long ringshank nails. Apply one nail at each corner and center of panels. Tiles or sheet covering can then be installed according to manufacturer's instructions.

### **Ceramic Tile:**

#### ***Tile NOT directly adhered to the floor panel***

Install cementitious backer board in strict accordance of manufacturers' installation instructions. Cementitious board must be installed following manufacturers recommended method and pattern of attachment. Tile backer screws must penetrate 4-Way at least 1". Install tile flooring in strict accordance of manufacturers' installation instructions.

#### ***Tile adhered directly to the floor panel***

Use the Mapei® Granirapid System- Rapid Setting Flexible Latex Mortar System. Mix the system components according to the Mapei specifications.

Apply the mixed Mapei mortar to the floor panel in accordance with Mapei instructions for installation onto plywood sub-floors and underlayments.

Use Bostik Hydroment® joint filler (sanded) with Multipurpose Acrylic (Mortar Admixture and Grout Additive) for grout. Tile and grout must be installed as per manufacturer's installations instructions.

### **T&G Nail Down Hardwood Strip Flooring**

Recommended subfloor surfaces: 3/4" T&G (19mm) CDX-grade plywood or 3/4 T&G (23/32) OSB PS2-rated underlayment.

Use an appropriate construction mastic to glue 3/4" subfloor to 4-Way. Apply the mastic using a 1/4" X 1/4" notched trowel (approx. 35 sq./ft. per

gallon). Cut the ¾" plywood or OSB into 4'X4' squares and stagger panel joints by 2', make sure joints do not coincide with 4-Way floor deck joints. Be sure to leave at least a 3/8" gap at all wall lines. Cut subfloor to fit within 1/8" near and around door jambs and other vertical obstructions where finish trim will not be used. To insure proper adhesion of the plywood or OSB to 4-Way, especially in cold weather, the plywood or OSB may need to be weighted uniformly to enforce a strong bond. Install the ¾" finished hardwood floor according to the manufacturers' installation instructions over the plywood subfloor.

### **Finished Floating Floors**

Install finished floating floor as per manufacturer's installation instructions.

### **Stretch Carpeting with Tack Strip:**

Apply separate pad and carpet to clean dry 4-Way with tackless strips according to the carpet manufacturer's instructions. Additional underlayment is not required. Carpeting made with integral rubber pad backing or other integrated padding material may be applied only if **tackless method is used. It should not be glued.**

Strips shall be attached to the surface of the 4-Way in the conventional manner and then additionally nailed, 8" o.c. with 1 3/8" annular threaded nails.



### Glue-Nail Pattern and Sequence

