TECHNICAL BULLETIN SEPTEMBER 2004

DUROCK® CEMENT BOARD

[CHIMNEYS, FIREPLACES, VENTS AND SOLID FUEL BURNING APPLIANCES] FLOOR PROTECTORS AND WALL SHIELDS

Guide Information

Floor protectors and wall shields are intended for use with Listed solid fuel heat producing appliances for the reduction of the surface temperature of combustible floor and wall construction materials, respectively.

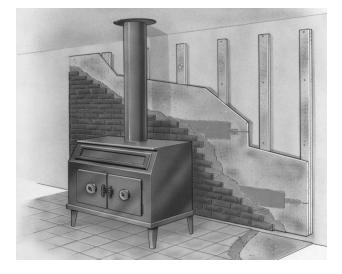
Floor protectors are intended to be placed over combustible floor construction materials beneath and adjacent to Listed fireplace stoves, solid fuel room heaters, factory built fireplaces, and fireplace inserts where reference to the Listed floor protector is specified, or when one layer of 3/8 in. thick millboard or equivalent is specified as the floor protection material, unless indicated otherwise in the individual Listings.

Wall shields are intended to be placed over combustible wall construction materials for the purpose of reducing the clearance to combustible materials from that presently required for individually Listed fireplace stoves and solid fuel room heaters. The reduced clearances to walls is specified in the individual Listings. Wall shields may also be placed over combustible wall construction for the purpose of a decorative wall finish with no reduction of clearance to combustible materials from the clearance required for Listed fireplace stoves and solid fuel room heaters.

Floor protectors and wall shields are intended to be installed in accordance with the installation instruction provided with each product.

The basic requirements used to investigate products in this category consist of UL's "Outline Of Investigation For Wall Protectors, Floor Protectors, And Hearth Extensions", Subject 1618.

The Listing Mark of Underwriters Laboratories Inc. on the product is the only method provided by UL to identify products manufactured under its Listing and Follow-Up Service. The Listing Mark for these products includes the name and/or symbol of Underwriters Laboratories Inc. (as illustrated in the Introduction of this Directory) together with the word "LISTED", a control number, and one of the following product names as appropriate: "Floor Protector", "Wall Shield". "Floor Protector and Wall Shield".



CEMENT BOARD WALL SHIELDS AND FLOOR PROTECTORS FOR UL-LISTED SOLID-FUEL ROOM HEATERS AND STOVES

- Protects combustible walls and floors
- Asbestos-free, yet highly fire-resistant
- Reduces required wall clearances by one-half
- Available in 6 convenient sizes for minimal cutting
 3' x 4', 5' and 6'; 4' x 8'; and 32" x 5' and 8'
- Attaches quickly and easily to wall furring for economical installation

DESCRIPTION

Space-saving Durock® Cement Boards are listed by Underwriters Laboratories, Inc., for use with UL-listed solid-fuel room heaters and fireplace stoves. Used as a wall shield, Durock Cement Board reduces by one-half the manufacturer-specified clearance (minimum 12") between the room heater or stove and a combustible wall surface. Durock Cement board may also be used as a floor protector in place of one layer of 3/8" thick millboard.*

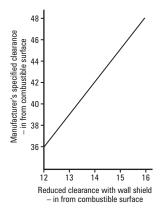
DUROCK Cement Board is available in sizes 1/2" x 3' x 4', 5' and 6'; 1/2" x 4' x 8'; and 1/2" x 32" x 5' and 8'. Optional 5/8" thickness is also available. DUROCK Exterior Cement Board is available 1/2" thick x 4' x 8' at only 3 lb./ft.² (for 1/2" board). DUROCK Cement Boards install quickly and easily with nails and screws.

*Having a thermal conductivity of k ≤ 0.84 Btu in./(ft.² ? °F) in the minimum dimensions specified by the room heater/stove manufacturer.



WALL SHIELD REDUCED CLEARANCES

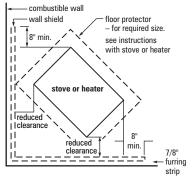
The reduced clearances (minimum 12") with a wall shield of DUROCK Cement Board are shown below. Check the graph for the exact reduction you can make in th manufacturer's specified clearances and calculate the floor space you can reclaim.



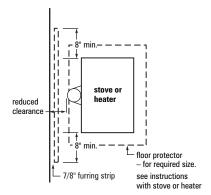
Stove to Wall Clearance

MINIMUM WALL SHIELD/FLOOR PROTECTOR EXTENSIONS

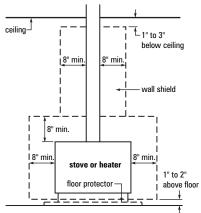
The three technical drawings below show the minimum wall shield or floor protector extension beyond the room heater or stove



Plan View: Corner Installation



Plan View: Along-the-Wall Installation



Front View: Corner or Wall Installation

DIRECTIONS

Tools and materials

- Furring strips
- WonderBoard®
- Wood rasp
- 1-5/8" or 2-1/4" DUROCK Wood Screws
- 1-1/2", 2-1/2" or 2-3/4" galvanized roofing nails
- DUROCK[™] Interior Tape
- Mortar meeting ANSI Specification 118.4 or 118.1

To install wall shield

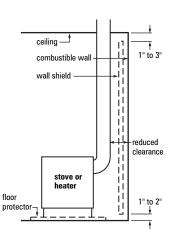
- Cut panel and furring strips to size with carbide-tip or utility knife scoring tool or circular saw using carbide-tip blade. Smooth rough edges with wood rasp.
- Attach DUROCK Cement Board furring strips to wall framing with 2-1/4" DUROCK Wood Screws or 2-1/4" galvanized roofing nails with 3/4" minimum framing penetration.
- 3. Attach Durock Cement Board wall shield through furring with 2-3/4" galvanized roofing nails with 3/4" minimum framing framing penetration.
- 4. Prefill joints with latex-fortified Portland cement mortar and then immediately embed tape and level the joints. As an alternative, apply Durock Tape over the joints and then apply latex-fortified Portland cement mortar, forcing it through the tape to completely and level the joints. This may require several passes to accomplish.

To install floor protector

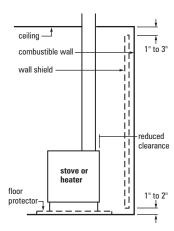
- Apply 1/8" to 1/4" thick latex-fortified Portland cement mortar to flat, continuous surfaces – never on top of carpeting or padding.
- 2. Attach DUROCK Cement Board with 1-5/8" DUROCK Wood Screws or 1-1/2" galvanized roofing nails at 8" o.c. both directions and with 3/4" minimum flooring penetration.
- 3. Prefill joints with latex-fortified Portland cement mortar and then immediately embed tape and level the joints. As an alternative, apply Durock Tape over the joints and then apply latex-fortified Portland cement mortar, forcing it through the tape to completely and level the joints. This may require several passes to accomplish.

Finishing

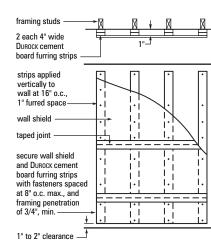
As an option, both wall shields and floor protectors may be finished with thin brick or ceramic or quarry tile set in a bed of mortar meeting ANSI 118.4 or 118.1.



Side View: Rear-Flue Stove



Side View: Top-Flue Stove



Furred Wall Shield Attachment

ADDITIONAL INFORMATION

For complete specifications and mor information on DUROCK Cement Board products and systems, refer to: SA932 Durock® Cement Board Systems SA700 Exterior Systems

TECHNICAL SERVICES

For specific technical assistance, call USG Technical Representative at (800) USG-4YOU (874-4968).

PRODUCT DATA

Sizes and Packaging:

DUROCK Cement Board: 1/2" (5/8 "thickness optional), 36" width x lengths of 4', 5', and 6';

4' width x 8' length; and 32" width x 5' and 8' lengths. Exterior Cement Board: 1/2" thickness, 48" width x 8' length.

Standards:

DUROCK Cement Board is listed by Underwriters Laboratories, Inc., for use with UL-listed solid-fuel room heaters and fire-place stoyes.

Availability and Cost:

DUROCK Cement Board is distributed throughout the United States. Contact a United States Gypsum Company sales office or sales person for additional information.

Composition and Materials:

DUROCK Cement Board is formed in a continuous process of aggregated Portland cement slurry with polymer-coated, glass-fiber mesh completely encompassing edges, back and front surfaces. The edges are formed smooth - patent No. 4,916,004. The ends are square cut.

Warranty:

Products and systems provided by United States Gypsum Company are warranted to be free from defects in material and workmanship. Contact a United States Gypsum Company sales office for complete warranty details.

Maintenance:

Contact a United States Gypsum Company sales office for complete details.



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