

OLD BRICK ORIGINALS™
KILN-FIRED THIN BRICK VENEER
Installation Guide

GeneralShale.com




General Shale
Building The American Dream®

INTRODUCTION

CHECK LOCAL
BUILDING CODES
FOR PROPER
INSTALLATION
GUIDELINES AS
BUILDING CODES
VARY BY REGION.

Thank you for choosing Old Brick Originals™ kiln-fired thin brick veneer from General Shale.

Thin veneer may be applied over virtually any surface, preferably over metal lath if it is a surface other than masonry. As building codes vary by region, it is important to check local building codes for proper installation guidelines.

This Installation Guide serves as a guide only. As with any construction project, observe safety precautions when installing this product.

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PACKAGING - CALCULATING PRODUCT COVERAGE**PACKAGING**

Old Brick Originals is packaged as follows:

Flats: 7 square feet/box
 Corners: 5.5 linear feet/box

**CALCULATING HOW MUCH PRODUCT YOU'LL NEED**

Calculate the amount of Old Brick Originals you'll need for your project by following these steps:

1. Measure the width and height of all areas to be covered. Multiply width by height to determine the **total square footage** of the surface area.
2. Estimate the corners required by measuring the total length of the wall corners to be covered. This will equal the **number of linear feet of Old Brick Originals corners** needed.
3. Subtract 75% of the corner calculation from the total square footage calculation you made in step #1. This will equal the **number of square feet of Old Brick Originals flats** needed.

Important Notes: If you intend on dry stacking the product on the wall (no mortar joints) you'll need 30% more product. Old Brick Originals is packaged assuming that the product will be installed with a minimum 3/8" mortar joint. Dry stack patterns are not recommended for exterior applications in cold weather climates where freeze-thaw cycles are anticipated.

Example:Measurements:

Width of wall: 15 feet

Height of wall: 10 feet

Length of corners: **20 feet = total linear ft. of corners needed**

Calculations:

1. Multiply Width x Height: $15 \times 10 = 150$ square feet
2. Multiply 75% x length of corners to be covered: $.75 \times 20 = 15$
(use this number below)
3. Subtract (2) from (1): $150 - 15 = 135$ **total sq. feet of flats needed**



Standard 3/8" Mortar Joint



No Mortar Joint
(Dry-Stacked)



YOUR CALCULATIONS

Use this page to keep track of the measurements for your project.

Take the Measurements:

- Measure width of wall in feet: _____
- Measure height of wall in feet: _____
- Measure length of corners to be covered: _____ = **Total linear feet of corners needed**

Perform the Calculations:

1. Multiply Width x Height: _____ x _____ = _____ Total square footage of surface area
2. Multiply 75% x length of corners to be covered: .75 x _____ = _____ (use this number below)
3. Subtract the 75% calculation (2) from the total square footage calculation (1):
_____ - _____ = _____ **Total square feet of flats needed**

MATERIALS CHECKLIST

In addition to Old Brick Originals flats and corners (per your calculations made on page 5), here are the materials you'll need when installing Old Brick Originals thin brick:

| ITEM | PURPOSE |
|---|--|
| <input type="checkbox"/> Tarp to cover floor | Floor protection - interior applications |
| <input type="checkbox"/> Weather barrier sheet | Protect wall from moisture |
| <input type="checkbox"/> Staple gun | Installing weather barrier |
| <input type="checkbox"/> 18-guage galvanized metal lath* | To create a masonry wall for brick to hold on to |
| <input type="checkbox"/> 3/4" corrosion-resistant screws (preferred) or nails | To secure metal lath |
| <input type="checkbox"/> Electric screwdriver or hammer | To secure screws/nails into metal lath |
| <input type="checkbox"/> Heavyweight trimming shears or wire snips | To cut metal lath |
| <input type="checkbox"/> Large sponge | To clean back of brick and eliminate dust |
| <input type="checkbox"/> Mortar: | Mortar mix for brick application/joint filling |
| For Scratch Coat: 1 part Portland Cement to 2.5 parts sand | |
| For Buttering Units: 1 part Portland Cement to 2 parts sand | |
| For Joints: 1 part masonry cement to 2 parts sand | |
| (As an alternative, use Type S or Type N Mason Mix and Water) | |
| <input type="checkbox"/> Bucket or Wheelbarrow | To mix mortar in |
| <input type="checkbox"/> Hoe or large mixing stick | To mix mortar with |
| <input type="checkbox"/> Point Trowel | To apply mortar to brick |
| <input type="checkbox"/> Flat Trowel | To apply mortar to "scratch coat" |
| <input type="checkbox"/> Masonry Blade | To score and break thin brick pieces to fit |
| <input type="checkbox"/> Small electric saw - optional | To custom-cut thin brick |
| <input type="checkbox"/> Mortar/Grout bag | To fill in joints |
| <input type="checkbox"/> Joint tool | To smooth out joints |
| <input type="checkbox"/> Stiff brush (not a wire brush) | To wipe away excess mortar |
| <input type="checkbox"/> Gloves | To protect hands during installation |
| <input type="checkbox"/> Safety glasses | To protect eyes during installation |
| <input type="checkbox"/> Dust mask | Protection during mortar mixing |

*Metal lath should be: 1. A minimum 2.5 lb galvanized expanded metal lath in accordance with ASTM C847 or
 2. A minimum 18 gauge galvanized metal mesh in accordance with ASTM C1032

Note about interior applications:

For interior applications where moisture is not a concern, a **fast adhesive method** may be used instead of the metal lath method. For this type of application, the weather barrier, metal lath, and staple gun will not be needed. In addition to the other items listed above, you will also need:

- Cement fiberboard (enough to cover the wall area and corners)
- Non-sagging adhesive (like Liquid Nails® or Power Grab®)

Begin by following the wall preparation and installation steps on Page 10.

SURFACE PREPARATION

Step 1: Install Weather Barrier

A weather resistant barrier should always be used when installing product over rigid backwall, wallboard, paneling, or wall sheathing. For more details about weather barriers, see page 11.

Cover the walls and corners with the weather resistant barrier, overlapping the joints 4". Staple the weather barrier on to the wall with staples no more than 6" apart.



Step 2: Install Metal Lath

Metal lath is installed over the weather barrier, and used as the foundation to which a mortar scratch coat will be applied, and onto which the thin brick will be installed. Secure the lath to your wall studs using 3/4" corrosive-resistant screws. Additional screws should be used between the studs and installed a minimum of 6" apart. Correctly installed, metal lath will feel rough to the touch going down and smooth going up. The rough side will grab and hold the mortar scratch coat. At the corners, overlap the vertical joints at least 16" around the corner to avoid corner cracking. Trim the lath around the edges with wire snips.



Step 3: Mix Mortar

Mix up rich mortar in a tub, bucket, or wheelbarrow. Use the mixture formula described on the Materials Checklist (page 6), or combine Mortar Mix and water. Mix the mortar with a hoe or mixing stick, bringing it to the consistency of peanut butter.



Step 4: Apply Scratch Coat and Allow to Cure

With a point trowel, scoop up some mortar and drop onto the flat trowel. Apply the mortar to the entire wall and corners - about 1/2" to 3/4" thick. This creates a "scratch coat" on top of the lath. Allow it to set up/ cure for 12-24 hours.



PRODUCT PREPARATION AND INSTALLATION

Step 5: Lay Out and Clean the Product

While the scratch coat is curing, remove the Old Brick Originals corners and flats from the box and lay them out in the desired pattern on a protected work table or floor. Keep in mind that the product may be sawn or chiseled during installation to fit precisely. Sponge off the back of the thin brick pieces to remove dust and help ensure a permanent bond to the wall.



Step 6: "Butter" the Back of the Brick

Once the scratch coat is cured (nothing sticks to your hand when you touch it), you are ready to begin applying the thin brick. Wet the wall with water to provide moisture for the mortar on the thin brick to absorb and adhere to. Mix up mortar as described on the Materials Checklist (page 6). With the point trowel, apply mortar to the back of the thin brick, about 1/2" thick.



Step 7: Install Thin Brick Corners

Beginning with the corner pieces, work either from the top-down, or bottom-up. Press the corner piece onto the wall, rotating back and forth slightly, and forcing some of the mortar to "squeeze out". Vary your corner returns while working your way up or down the wall to avoid unattractive vertical mortar joints near the corners. Allow about 3/8" space between the brick pieces.



Step 8: Install Thin Brick Flats

After the corner pieces are installed, apply flat pieces starting at an outside corner and working your way in. Remove excess mortar from around or on the brick with a sponge or stiff brush.



PRODUCT AND WALL FINISHING**Step 9: Cut Thin Brick as Needed**

To cut pieces to fit the application, score the brick with a masonry blade about 1/4" deep and break the scored piece. Or, a small electric saw with a diamond blade may be used.

**Step 10: Fill Joints with Mortar**

Once all of the brick is in place, use a mortar/grout bag to fill in the joints between the brick (unless you have chosen the dry-stack method in which case proceed to Step 12). Add colorant to the mortar if desired. Add more water to the mortar so that it is smooth and flows easily out of the bag. Fill the bag about half full with mortar, and twist the bag at the end. Fill the vertical and horizontal joints with mortar, and sponge or whisk off excess mortar that gets onto the brick face.

**Step 11: Smooth out Joints**

As the mortar begins to stiffen to the consistency of wet beach sand, use a joint tool to smooth out the mortar joints to the desired depth. A stiff-bristled paint brush may also be used to push mortar into the crevasses and smooth joints.

**Step 12: Clean the Brick**

Use a wet sponge or stiff brush to clean off any remaining mortar on the brick face.

Congratulations, your thin brick installation project is complete!

See the notes section on page 11 for other important information.



FAST ADHESIVE METHOD

FAST ADHESIVE METHOD - Interiors Only

For interior applications where moisture is not a concern, a **fast adhesive method** may be used instead of the metal lath method. Follow these steps instead of steps 1-9 found beginning on page 7.

Step 1: Install the Cement Fiberboard

Secure the fiberboard to your wall studs using 3/4" screws. Be sure to countersink the screws so the brick can bond properly to the board. At the corners, ensure the fiberboard meets at the ends so that there are no gaps.

Thin brick may also be applied directly over water-resistant drywall ("green board" or "blue board"). Applying thin brick directly over standard drywall may negatively affect joint quality and overall durability.



Step 2: Install the Thin Brick

Start with the corner pieces, working either from the top-down, or bottom-up. Using a non-sagging adhesive, apply a generous bead to the back of each brick and firmly press into place on the wall.

Vary your corner returns while working your way up or down the wall to avoid unattractive vertical mortar joints near the corners (see Step 8 on page 8). Allow about 3/8" space between the brick pieces unless you are dry-stacking the material.

After the corner pieces are installed, apply flat pieces starting at an outside corner and working your way in. Let the adhesive dry overnight. Mix up mortar to fill mortar joints (see Step 3 on page 7), and then continue with installation steps 10-12 found on page 9.



NOTES/SAFETY INFORMATION

Weather Resistant Barriers (WRB)

1. A weather resistant barrier should always be used when installing product over rigid back-wall, wallboard, plywood, paneling, or wall sheathing. General Shale recommends the use of two weather resistant barriers for exterior applications and/or a drainage-type system behind the thin veneer with a drainable panel, flashings, weep holes. Check your local codes prior to installation.
2. A weather barrier is not needed when the thin brick is being applied over masonry or concrete.
3. Depending on local building code requirements, a weather barrier should meet the requirements of IBC Acceptance Criteria #38: Acceptance Criteria for Water-Resistive Barriers.

Cleaning Information

1. In general, thin veneer units should be kept clean during the installation process. Mortar smears should be removed by gently dry-brushing and wiping with a damp sponge at the end of work periods. For general cleaning, bucket and brush hand cleaning methods described in BIA Technical Note #20, with non-acidic detergent cleaners is recommended. Pressure wash cleaning methods should not be used.

Safety Information

1. When installing masonry products, it is recommended that you wear protective clothing, gloves, and eyewear.

Installation Information

1. As building codes vary by region, it is important to check local building codes for proper installation guidelines.
2. This Installation Guide serves as reference only and is not meant to act as a substitute for professional advice.
3. Product should not be installed if the ambient temperatures are expected to drop below 40°F within 24 hours after installation. Antifreeze-type mortar additives or chloride-based additives are not recommended. For additional information on cold weather construction, refer to ACI 530-05 Section 1.8C.

For more information about Old Brick Originals™ or to find a showroom or distributor near you, visit **GeneralShale.com** or call 800.414.4661.

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