Until recently, if a project called for the natural look of stone but could not support its weight or thickness, the options were limited to manufactured imitation stone. More recently, machinery has evolved that can cut full size natural stone into thin stone veneers. Unlike manufactured stone veneers, natural thin stone is quarried and then cut into thin flat or thin corner pieces. The corner pieces help to give the final project the appearance of a full thickness stone. The result is an exciting variety of colors, textures, sizes and shapes of thin stone that offer endless design opportunities.
CHARACTERISTICS OF NATURAL THIN STONE VENEER
- Natural thin veneer stone is ± 3/4” to 1-1/2” thick. Thickness can vary depending on the density of the stone.
- In order to be considered a natural thin veneer stone, the weight of the stone must be 15 lbs or less per square foot as described in the 1997 Uniform Building Code.
- The weight of natural thin veneer stone can be as much as 75% less than that of full thickness veneer stones.

ADVANTAGES OF NATURAL THIN STONE VENEER
- Does not require load-bearing foundations
- A wide variety of styles, colors and textures available
- Good for interior and exterior applications
- Can be used in both new and remodel projects
- Endless design opportunities
- Can be applied over multiple surface types
- Average thickness ± 3/4” to 1-1/2”, therefore thin stone veneers can be used where thickness is an issue
- Unlike manufactured stone, thin veneer stone can be customized and shaped without sacrificing the look or quality of the stone
- Easy to install
- Lightweight (thin stone weighs 15 lbs per square foot or less)
- Provides added property value
PRODUCT GUIDELINES
Thin Veneer Products may be installed over most any masonry surface or interior/exterior framed wall. All surfaces should be clean and dry and void of debris or loose material. The following information provides basic guidelines for the installation of Natural Thin Stone Veneer. Use this in conjunction with local building codes. Our resources include the Building Stone Institute, Champlain Stone, and Masonry Technology Inc.

INSTALLATION BASED ON DIFFERENT SURFACES

CONCRETE BLOCK, BRICK, Poured CONCRETE Fig. 1a
Natural Thin Stone veneer can be applied directly to any new or existing concrete block or brick surface. The existing surface must be sound and without defects. Additionally, the surface cannot be painted or sealed. In the case of a poured concrete wall, all form release chemicals should be either sandblasted or removed with a masonry detergent, or metal lath should be used. (Fig. 1b)

FRAMED WALLS (CONCRETE BOARD) Fig. 2
Unless mandated by local codes, no specific surface preparation is required.

FRAMED EXTERIOR WALLS (PLYWOOD) Fig. 3
For exterior walls a non-corrosive metal lath is applied (see waterproofing instructions). All wood surfaces require the application of non-corrosive wire lath and a scratch coat of mortar cement (between 1/2” - 1” thick) before applying natural thin stone veneer.

RECOMMENDED METAL LATH
Use self-furring, non-corrosive, expanded metal lath, 3.4 lbs per yard weight. Use galvanized, barbed nails (or another quality anchor system such galvanized screws and washers) at 6” vertical centers, in line with wall stud horizontal spacing. Place nails in furring groove or dimples to preserve 1/4” furring away from wall of metal lath. Overlap horizontal joints of lath a minimum of 1” and vertical joints a minimum of 1”.

RECOMMENDED MORTAR TYPE
The use of Specmix Stone Veneer Mortar Type “S” (polymer modified) or Mortar Type “S” with a bonding agent is suggested.

WATERPROOFING PROCEDURES
Listed below are general procedures used to waterproof areas before the installation of Natural Thin Stone Veneer. Waterproofing is an extremely important process which must meet or exceed all local building codes and BSI recommends that a highly qualified waterproofing company/contractor handle this portion of the installation or knowledgeable mason subcontractor adhering to industry standards.

A moisture-resistant barrier can be applied to all vertical wood or moisture-sensitive backup-walls. Overlap adjoining sheets of moisture barrier a minimum of 2” on horizontal joints and minimum 6” on vertical joints. It is recommended by Building Stone Institute to include a weep system behind an exterior installation of Natural Full Veneer and Natural Thin Stone Veneer.
CALCULATING THE AMOUNT OF THIN STONE VENEER NEEDED:
1. Find the total square footage by measuring the width and height of the areas to be covered.
   Multiply the width x height to figure square footage required (if no corner pieces are needed).
2. Estimate the corners by measuring the length of wall corners to be covered. This equals the total lineal footage of corners required.
3. Finally, subtract 75% of the corner lineal footage calculation from the total square feet to be covered. This equals the number of square feet of flats required.

When ordering stone a waste factor needs to be considered. The waste factor could be anywhere from 10% to 25% depending on the look that’s trying to be achieved.

RECOMMENDED TOOLS:
Brick Trowel, Brick Hammer, Notched Trowel, Flat Trowel, Jointer, Grout Bag, Masonry Brush, 4” Angle Grinder with a Diamond Blade, Dust Mask and Safety Glasses.
Materials needed to prepare for Natural Thin Veneer Stone will depend upon the type of surface to which the stone will be applied.

STEP BY STEP INSTALLATION:

1. Wire Lath
2. Mortar over lath
3. Scratch mortar
4. Cut or shape stone
5. Apply mortar to stone
6. Press in place
7. Corner piece
8. More corners
9. Stone shims
10. Filling joints
11. Filling joints
12. Finishing joints
The natural choice since 1925