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INSTALLING GLEN-GERY THIN BRICK ON RESIDENTIAL BUILDINGS USING THE MORTAR APPLICATION (THICK SET)

TOOLS & MATERIALS

- 1/4" Square-notched trowel, notches on two sides
- Carbide-tipped offset tile nippers
- Chalk line or mason's string
- Masking tape
- Adhesive
- Beating block or rubber mallet

Note: "TCA W2XX" refers to methods of the Tile Council of America.

The thick bed set procedure can be used on interior or exterior surfaces. The backing material may be masonry, concrete, steel or wood stud framing.

Interior/Exterior Application on Masonry/Concrete (TCA W221):

- Use over oil and wax free, clean, sound, dimensionally stable masonry or concrete. If the walls are wet, the water source must be discovered and eliminated. Repair any damaged areas. Painted concrete should be bush hammered or heavily sand-blasted. Concrete and masonry surfaces should not vary more than 1/4" in 8 feet.
- Install self-furring metal lath. Use galvanized or stainless steel wire lath for all applications.
- Expansion and control joints in a masonry or concrete substrate must be mirrored in the thin brick. Cut the metal lath at expansion joints.
- In exterior applications, where the thin brick system meets other materials, flashings must be installed to direct the flow of water down and out. Do not rely on caulking.
- Apply the scratch coat of mortar on top of the wire lath, masonry or concrete. Float surface of the scratch coat plumb and true and allow to set until firm.
- Apply a leveling coat if the surface varies more than 1/4" in 8'0".
- Apply the setting coat with the straight edge of the trowel, and then use the notched edge of the trowel to groove the coat just prior to installation of the bricks.
- Butter the backs of the thin bricks with mortar and then press them firmly into place. Space the bricks 3/8" apart. Beat the bricks firmly into position with a beating block or rubber mallet. All edges must be sealed with mortar so that there are no voids between the bricks and the wall.

- Joints must be free of dirt, debris or spacers. Sponge or wipe dust and dirt from brick faces. Press the mortar into joints with a tuck-pointing tool so that they are full and free of pits and voids. A grout bag may also be used. Tool joints when recommended by mortar manufacturer. Use a masonry joint tool, screwdriver or other suitable tool. Keep the jointing tool clean and damp.

Interior/Exterior Application on Wood/Steel Framing (TCA W241):

- If the walls are wet, the source of the water must be discovered and eliminated. Remove all wallpaper, loose paste or paint and laminates. Sand painted or glossy surfaces. Wash walls to remove dirt and dust. Repair any damaged areas. Surfaces should not vary more than 1/4" in 8'0".
- Install #15 or #30 roofing felt on top of the wallboard. Lap and seal joints according to the manufacturer's instructions. Because the thin brick system forms the weather barrier for the structure in exterior applications, proper application of the water resistant membrane is mandatory.
- Install self-furring wire lath over the water resistant membrane. Use galvanized or stainless steel wire lath for all applications. Cut the metal lath at expansion joints.
- In exterior applications, where the thin brick system meets other materials, flashings must be installed to direct the flow of water down and out. Do not rely on caulking.
- Apply the scratch coat on top of the waterproof membrane and metal lath. Float surface of scratch coat plumb and true and allow to set until firm.
- Apply a leveling coat if the surface varies more than 1/4" in 8'0".
- Apply the setting coat with the straight edge of the trowel, and then use the notched edge of the trowel to groove the setting coat just prior to installation of the brick.
- Butter the backs of the thin bricks with mortar and then press them firmly into place. Space the bricks 3/8" apart. Beat the bricks firmly into position with a beating block or rubber mallet. All edges must be sealed with mortar so that there are no voids between the bricks and the wall.
- Joints must be free of dirt, debris or spacers. Sponge or wipe dust and dirt from brick faces. Press the mortar into joints with a tuck-pointing tool so that they are full and free of pits and voids. A grout bag may also be used. Tool joints when recommended by mortar manufacturer. Use a masonry joint tool, screwdriver or other suitable tool. Keep the jointing tool clean and damp.

GENERAL GUIDELINES for mortar application

- Measure the area (H x W) of the wall to be covered to determine how many thin bricks are needed and how much mortar and grout are needed. For example: If the height of the wall is nine feet and its length is 18 feet, the area of the wall is 162 square feet. About seven thin bricks are needed to cover a square foot, so 162 square feet x 7 thin bricks per square foot = 1,134 thin bricks to cover the wall. Remember, there will be some losses because of cutting and damage, so order extra thin bricks.
- Both exterior and interior walls must be rigid (stiff). The maximum variation from plane is 1/4" in 8'0". In interior work, vertical and horizontal expansion joints must be installed every 24 feet or more frequently. In exterior work, vertical and horizontal expansion joints must be installed every 16 feet or more frequently.
- The temperatures of the air and the materials - thin bricks, mortar, and the surface to which the thin brick will be applied - must be between 50°F and 90°F. This temperature range must be maintained for 48 hours after the application has been completed.
- Plan your work by laying the thin bricks out on the floor or a plank from one end of each wall to the other. This will help you decide how many units will be needed, decide where cuts will be needed, and determine how head joint spacing must be adjusted at corners.
- If you are covering an entire wall without inside or outside corners, start at the upper left hand corner of the wall and work down and to the right. If you are left-handed, it may be easier to start at the upper right hand corner and work down and to the left.
- If your design includes outside corners, set all of the outside corners first, alternating the long and short corners on every other row. Be sure to lay out the work to determine if the corner opposite the starting corner has a long leg or short leg.

- To trim the length or height of a thin brick use carbide-tipped offset tile nippers or cut the bricks with a diamond-bladed saw.
- Thin bricks may be supported temporarily by placing lengths of rope or wooden strips in the bed joints.
- Tile Council of America methods can be obtained from www.tileusa.com or Tile Council of America, Inc., 100 Clemson Research Boulevard, Anderson, SC 29625. The TCA's e-mail address is literature@tileusa.com.

RECOMMENDED CLEANING

- Cleaning is much easier if care is taken during application to avoid smearing mortar on the faces of the thin bricks. Special grout release chemicals may be applied to the thin bricks before the joints are filled to make cleaning easier. Using a grout bag to fill the joints with mortar instead of pushing the mortar in with pointing trowel makes cleaning much easier.
- Water may be used to remove much of the mortar before it has set. Remove cementitious mortars according to Glen-Gery's "Recommended Cleaning Procedures and Solutions" for thin bricks. Procedures vary due to color and texture. Remove other mortars according to manufacturer's instructions. Do not saturate the surface or smear the mortar. **Never use muriatic acid, wire brushes or other abrasive methods to clean thin bricks.**



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For more information, please contact your Glen-Gery representative:

INSTALLING GLEN-GERY THIN BRICK ON RESIDENTIAL BUILDINGS USING THE ADHESIVE APPLICATION (THIN SET)

TOOLS & MATERIALS

- 5/32" V-notched trowel, notches on two sides
- Carbide-tipped offset tile nippers
- Chalk line or mason's string
- Masking tape
- Adhesive
- Beating block or rubber mallet

Note: "TCA W2XX" refers to methods of the Tile Council of America. Only use thin-set methods on interior surfaces.

Interior Dry-Set Application on Masonry/Concrete Backing (TCA W202):

- If the walls are wet, the source of the water must be discovered and eliminated. Sand painted or glossy surfaces. Wash walls to remove dirt and dust. Repair any damaged areas. Surfaces should not vary more than 1/8" in 8'0".
- Follow the directions provided by the manufacturers of both the adhesive and the mortar for mixing and curing times. Apply the adhesive with a 5/32" V-notched trowel. Smooth any pronounced ridges with a putty knife. Do not apply more adhesive on the wall than can be used in 20 to 30 minutes or while adhesive surface is still wet and tacky.
- Space bricks 3/8" apart. Beat the bricks firmly into position with a beating block or rubber mallet. All edges must be sealed with adhesive so that there are no voids between the bricks and the wall. Allow adhesive to cure prior to pointing the bricks.
- Joints must be free of dirt, debris or spacers. Sponge or wipe dust and dirt from brick faces. Press the mortar into joints with a tuck-pointing tool, so that they are full and free of pits and voids. A grout bag may also be used. Tool joints when recommended by mortar manufacturer. Use a masonry joint tool, screwdriver or other suitable implement. Keep the jointing tool clean and damp.

Interior Adhesive Application on Wood/Steel Stud Backing (TCA W242):

- The wall system must be rigid. Deflection must not be greater than L/360 and, preferably, less than L/600. If the walls are wet, the source of the water must be discovered and eliminated. Wallboard should be securely anchored. Remove all wallpaper, loose paste or paint and laminates. Sand painted or glossy surfaces. Wash walls to remove dirt and dust. Repair any damaged areas.

- Follow the directions provided by the manufacturers of both the adhesive and the mortar for mixing and curing times. Apply adhesive with a 5/32" V-notched trowel. Smooth any pronounced ridges with a putty knife. Do not apply more adhesive on the wall than can be used in 20 to 30 minutes or while adhesive is still wet and tacky.
- Space bricks 3/8" apart. Beat the bricks firmly into position with a beating block or rubber mallet. All edges must be sealed with adhesive so that there are no voids between the bricks and the wall. Allow adhesive to cure prior to pointing the bricks.
- Joints must be free of dirt, debris or spacers. Sponge wipe dust and dirt from brick faces. Press the mortar into joints with a tuck-pointing tool so that they are full and free of pits and voids. A grout bag may also be used. Tool joints when recommended by mortar manufacturer. Use a masonry joint tool, screwdriver or other suitable implement. Keep the jointing tool clean and damp.

Interior Dry-Set Application on Wood/Steel Stud Backing (TCA W243):

- The wall system must be rigid. Deflection must not be greater than L/360 and, preferably, less than L/600. If the walls are wet, the source of the water must be discovered and eliminated. Wallboard should be securely anchored. Remove all wallpaper, loose paste or paint and laminates. Sand painted or glossy surfaces. Wash walls to remove dirt and dust. Repair any damaged areas.
- Follow the directions provided by the manufacturers of the thin-set for mixing and curing times. Apply the thin-set with a 5/32" V-notched trowel. Smooth any pronounced ridges with a putty knife. Do not apply more thin-set on the wall than can be used in 20 to 30 minutes or while thin-set is still wet and tacky.
- Space bricks 3/8" apart. Beat the bricks firmly into position with a beating block or rubber mallet. All edges must be sealed with thin-set so that there are no voids between the bricks and the wall. Allow adhesive to cure prior to pointing the bricks.
- Joints must be free of dirt, debris or spacers. Sponge wipe dust and dirt from brick faces. Press the mortar into joints with a tuck-pointing tool so that they are full and free of pits and voids. A grout bag may also be used. Tool joints when recommended by mortar manufacturer. Use a masonry joint tool, screwdriver or other suitable implement. Keep the jointing tool clean and damp.

GENERAL GUIDELINES for adhesive application

- Measure the area (H x W) of the wall to be covered to determine how many thin bricks are needed and how much adhesive, mortar and grout are needed. For example: If the height of the wall is nine feet and its length is 18 feet, the area of the wall is 162 square feet. About seven thin bricks are needed to cover a square foot, so 162 square feet x 7 thin bricks per square foot = 1,134 thin bricks to cover the wall. Remember, there will be some losses because of cutting and damage, so order extra thin bricks.
- Walls must be rigid (stiff). The maximum variation from plane is 1/8" in 8'0". Vertical and horizontal expansion joints must be installed every 24 feet or more frequently.
- The temperatures of the air and the materials - thin bricks, adhesive, and the surface to which the thin brick will be applied - must be between 50°F and 90°F. This temperature range must be maintained for 48 hours after the application has been completed.
- Plan your work by laying the thin bricks out on the floor or a plank from one end of each wall to the other. This will help you decide how many units will be needed, decide where cuts will be needed, and determine how head joint spacing must be adjusted at corners.
- If you are covering an entire wall without inside or outside corners, start at the upper left hand corner of the wall and work down and to the right. If you are left-handed, it may be easier to start at the upper right hand corner and work down and to the left.
- If your design includes outside corners, set all of the outside corners first, alternating the long and short corners on every other row. Be sure to lay out the work to determine if the corner opposite the starting corner has a long leg or short leg.
- To trim the length or height of a thin brick use carbide-tipped offset tile nippers or cut the bricks with a diamond-bladed saw.

- Thin bricks may be supported temporarily by placing lengths of rope or wooden strips in the bed joints.
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RECOMMENDED CLEANING

- Cleaning is much easier if care is taken during application to avoid smearing mortar on the faces of the thin bricks. Special grout release chemicals may be applied to the thin bricks before the joints are filled to make cleaning easier. Using a grout bag to fill the joints with mortar instead of pushing the mortar in with pointing trowel makes cleaning much easier.
- Water may be used to remove much of the adhesive and mortar before they have set. Remove cementitious mortars according to Glen-Gery's "Recommended Cleaning Procedures and Solutions" for thin bricks. Procedures vary due to color and texture. Remove other mortars according to manufacturer's instructions. Remove dried adhesive according to the adhesive manufacturer's instructions. Do not saturate the surface or smear the mortar. **Never use muriatic acid, wire brushes or other abrasive methods to clean thin bricks.**



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