

Pro GEN II Water Proofing for Tiled Shower Kit Installation Instructions



For 48x48, 32x60, 48x60, 48x72, 60x60, 72x72, others (509) 334-4410

Please read all instructions thoroughly before beginning. If you have questions, please call.

VERY IMPORTANT!

READ THE FOLLOWING BEFORE STARTING INSTALLATION

DO NOT use any brand or version of PRE-MIXED thin-set mortar with this kit installation or tiling after kit installation.

DO NOT use any thin-set mortar modified or non-modified that comes pre-made in a bucket or pail. None of these thin-set mortars will reliably cure with any brand of waterproof membranes or shower installations. **DO NOT** use mastics or other ready-to-use-in-a-bucket type tile adhesives.

DO USE polymer/modified thin-set mortars that are sold as a dry powder in a bag (typically 50#) that need to be thoroughly mixed with water to activate and apply.

DO USE a well-known name brand polymer/modified thin-set mortar to include companies like but not limited to (HB Fuller) TEC, Laticrete, Mapei, Ardex, (CBP) Custom Building Products available from your local hardware store.

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(800) 369-5458

For 48x48, 32x60, 48x72, 72x72, others

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Tools & Materials Required or Recommended

- Jigsaw (for subfloor drain hole) & Drill (for pilot hole) or equivalent
- Premium Modified (Latex/Polymer) Thin-set Mortar (NO pre-mixed, avoid fast-set)
- 5-Gallon Bucket
- Mixer
- 3/16" x 3/16" Recommended, up to 1/4" x 1/4" square or V-notch trowel (Shower Pan)
- Margin Trowel (optional) - may use flat edge of standard trowel
- Utility Knife
- PVC or ABS Cement per your area, and section of coupler pipe for connection
- Level
- Mortar mix if filling large gaps

Your Kit Includes:

- Primary Pan Sections (varies per kit)
- Extension Sets for Some Kit Sizes
- 108 - 216 SF Waterproofing Membrane
- 33 - 66 LF Waterproof Joint Band
- 4 Pre-shaped Inside Corners
- 1 Pro GEN II Flange in ABS or PVC
- 1 Pro GEN II Flange in ABS or PVC
- Drain Grate Riser with Construction Plug
- Hair Trap & Choice of Drain Grate Cover
- *Curb pieces if optionally ordered*
- *Outside corners with curbs or option*
- *2 outside corners with purchase of curb*

1. Ensure that your subfloor is flat and level. If not, use leveling compound before beginning installation. Locate drain position and arrange pan pieces to center over drain area. If the area is smaller than the pan or pan plus extension(s), trim foam with a fine-toothed hand, power saw, or utility knife and straight edge - preferably equally from each side until the pan pieces fit the custom space properly with the hole centered on the desired drain location. If the overall pan size is smaller than the desired floor plan by more than 1/2", dry-pack mortar mix may be used to extend the size of the shower pan where needed. When using dry-pack mortar (the mix ratio is usually not critical for small "patch" areas - 3:1 to 5:1 sand to portland cement should be fine), be sure to protect a wood subfloor with tar paper. For gaps of 1/2" or less, you may use modified thin-set mortar which can be directly applied to wood surfaces.

2. Mark general drain location on the subfloor (if it does not already exist) by using the center hole of the dry-fitted pan pieces as a guide. Trace another circle inside the existing circle. It is preferable but not absolutely necessary to leave a 1/2" or larger ridge for better drain flange support. You may also use a center point and create a circle with about a 4" diameter.



3. Drill Pilot Hole on the inner circle you have hand drawn Use the jigsaw to cut hole in subfloor using the inner-most circle as a guide (~4" diam.). There should be enough clearance for the tail-piece of the drain flange, but the base of the flange is preferably supported by the subfloor. Be sure to (test) dry fit drain flange and pan pieces (a dry-fit flange will sit "proud" of a dry-fit pan before thin-set mortar is applied underneath the pan.) A properly thin-set pan will sit at the correct height during installation.



4. The pictures show various floor panel configurations depending on the kit.

A 48x48 pan will include 4 interlocking pieces.

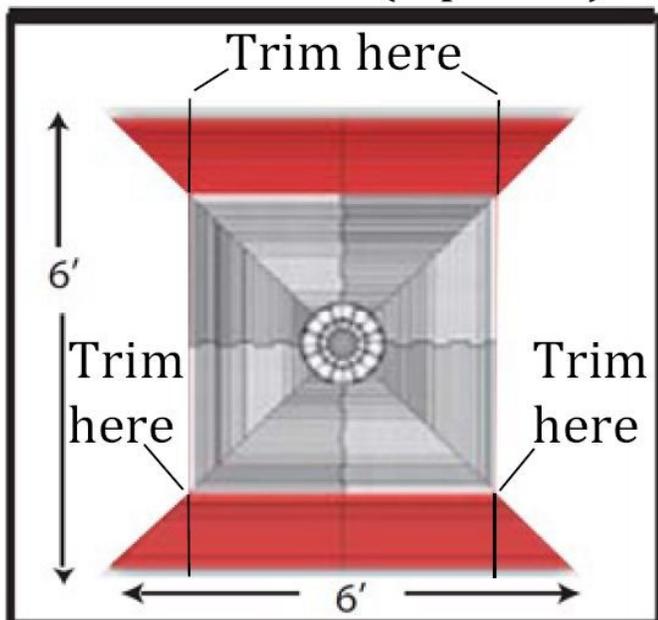
A 32x60 pan will have two.

A 72x72 kit consists of a 48x48 pan with 2 extension sets (a total of 8 additional panel pieces with mitered corners.)

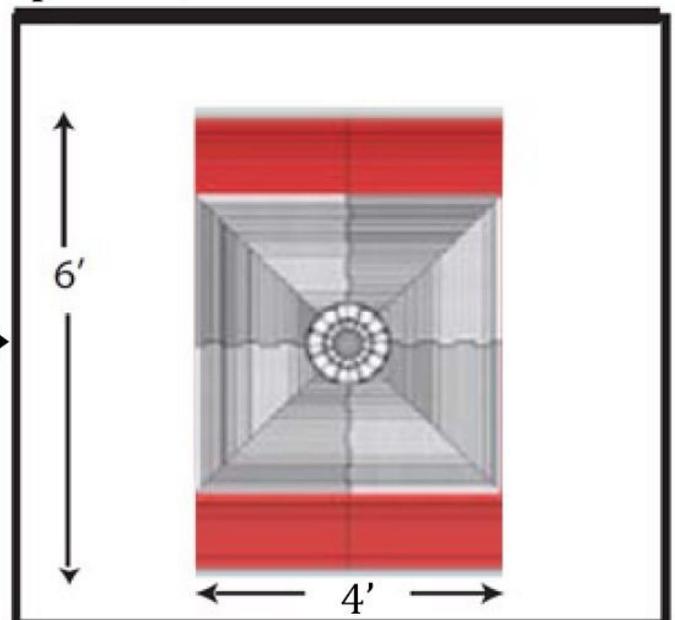
A 48x72 kit uses just one extension set with the four extension pieces laid out as per the diagram then trimmed.



48 x 48 tray with one extension set (4 pieces)



After trimming extension pieces, a 48 x 72 is created



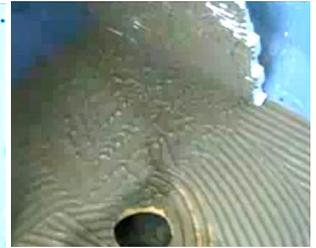
5. The current pan can accommodate a variety of drain flanges including those that are only supported by the pan pocket. Your drain pan is usually precut at the warehouse to accommodate the much stronger GEN II drain flange. However if it is not, trim the inside of the pan drain opening to allow for a snug fit of the flange. It should dry fit as seen from the bottom of the pan in this photo.



6. Test Fit drain flange directly to subfloor and measure distance to 2" diameter waste pipe fitting under subfloor. Cut and test the proper length coupler pipe that will attach flange to waste pipe but still allow the flange direct support at the subfloor. The top of the 2" pipe coupler should come to about 1-1/2" below the top of the subfloor (and sleeves inside drain outlet.) Ensure a successful dry fitting so that these will later glue together correctly



7. Using a 1/4" x 1/4" trowel, apply thin-set onto the entire subfloor in the pan area AND to the back of the pan (back-butter.) Although less thin-set may offer a sufficient bond, insufficient thin-set will likely create a scenario where the drain flange sits up too high (out of the "pocket").



It is desirable for the flange to have full support at the base on the subfloor unlike other designs that only have support from a larger flimsy flange. Press the first pan section firmly into the thinset mortar. Repeat until all sections are installed into the desired pan area. Walk over the pan sections to help ensure that each piece is fully embedded into the thin-set mortar.



8. If you have constructed your own curb, ensure that it is sheathed with a rigid material like concrete board or sheetrock. If you purchased the optional foam curb, test fit your curb sections and trim as necessary to fit the desired space. Mark the location of your curb(s) and trowel notched thin-set mortar into the curb seating areas. Additionally back-butter the ends, sides and bottom of each curb section. If you purchased a curb, you should automatically have received outside corners to be installed during the waterproofing phase.



9. Dry fit your drain flange into the foam pocket and onto your plumbing 2" diameter waste pipe. The GEN II flange has locking grooves built into the bottom. Literally step on the drain flange to force the locking grooves into the foam pocket to guarantee a perfect seat for final installation. At this point, just leave the flange dry-fitted in place.



NOTE ON WATERPROOFING PROCEDURE:

To be effective, the WP waterproofing membrane requires as close to 100% contact with thin-set mortar as possible. Your high-quality preferably modified thin-set mortar needs to be mixed according to manufacturers instruction to a creamy consistency to ensure that it beds completely into the membrane's factory-bonded fleece. You may use any trowel with a notch between 1/8" to 3/16" - all video and install examples use a 3/16" to ensure excess thin-set mortar will need to be forced out with a flat edge. Until you are familiar with the installation feel, occasionally lift a section to ensure that 100% coverage is achieved.



These instructions show the installation from the floor up. We highly recommended to allow the floor installation to cure 24 hours before proceeding with the wall and other installation steps. If you need to complete this installation more quickly - to avoid risk of disturbing the floor installation, we recommend reversing the installation order (walls first starting at the bottom and going up) then finish with the floor install. Please be sure to pre-cut the pan membrane for your floor section if using this method and set aside for later. Running out of membrane high up on the wall well out of the direct-water area is not a problem; running out of membrane for your floor area would be a problem.

Your waterproofing membrane is 1 meter or 39.5" wide. On 32" wide shower kits, you can precut a single sheet of 39" wide membrane and precut for the drain hole if desired.

On all other shower kit configurations or on larger mortar bed layouts, you will need to plan for at least two sheets with a minimum of a 2" overlap.

We highly recommend that you **DO NOT** overlap **OVER** the drain location to help ensure installation integrity.

Pre-cut the membrane needed for the pan and curb and continue to the next step.

10. Trowel thin-set into an inside corner to prepare for the pre-shaped inside corner piece. Fit the corner piece into position by hand. Using a margin trowel or the flat section of your trowel, press the corner into the thin-set area to ensure a complete bond. Be sure you are achieving 100% coverage of thin-set on membrane. Smooth the corner out and check for air bubbles. A properly installed corner blends into the installation as shown in the picture. Repeat for all 4 inside corners.



11. Measure the distance between two corners and cut a section of 5" WP band that is about 1 inch less (it's best to be about 1/2" away from each edge while still allowing for a 2" overlap.) Fold the strip longitudinally and crease it to prepare for install. Apply 3/16" notched modified thin-set mortar to the floor-to-wall joint that you just measured. Seat the creased WP band piece first by hand then with the flat edge of a trowel being careful not to disturb the bond you previously completed on the inside corners.



12. Repeat band installation procedure for all pan-to-wall and pan-to-curb distances between your inside corners. Repeat the same procedure for any vertical distances where two walls meet at a corner. When dealing with any edge or corner, some installers use two straight edged tools at the same time to speed installation. Be sure to clean up any excess thin-set that has been forced out with your straight edge. These installed WP band sections double-protect your installation at plane changes by waterproofing and isolating your tile and grout from cracking at these traditionally vulnerable edges.

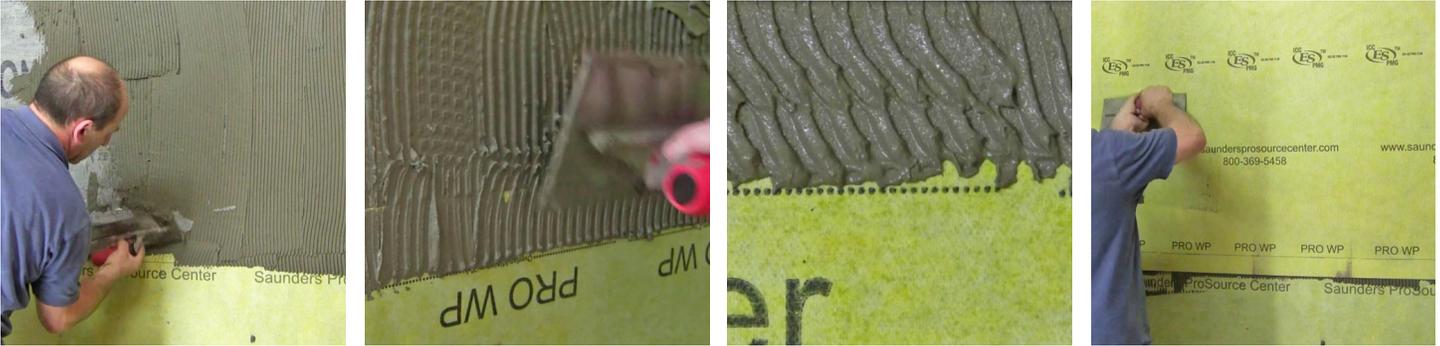


13. Mark out a wall section to incorporate a full-width sheet of membrane. As when preparing the band, measure from corner to corner then cut a length from the large roll of WP membrane about 1 inch short to allow centering of the piece about 1/2" away from each edge while still overlapping the band by 2". Apply 3/16" notched modified thin-set mortar to the entire wall section marked out then seat and position the prepared membrane. Once positioned, force the membrane into the thin-set first by hand - working from the middle out. Follow up with the straight edge to force excess thin-set out from between the membrane and wall. To help prevent trapped air, start from the middle and work your way to each edge. Ensure that your thin-set remains creamy and is achieving nearly a 100% contact and bond. If your thin-set starts to get too dry, mix a new batch.



The remainder of the installation is going to follow this same sequence of installation procedures. For seamless continuation of the waterproofing, each new section will overlap the previous by 2 inches. The WP membrane features a dashed line near the edge as a guide to assist you in proper installation.

14. When adding an additional overlapping piece of WP membrane, work notched thin-set mortar over the marked out section including an overlapping section on the previously installed membrane. Use the dashed line as a guide for how much overlap of thin-set to provide. Install this an any remaining pieces with the same exact installation procedures.



15. After all corner, edge and wall sections have been completed, install the final floor piece or pieces that were previously cut and set aside. Trowel out 3/16" notched modified thin-set mortar over the entire pan area including the pocket of the pan where the drain flange will install. Using ABS or PVC glue appropriate for your plumbing, work glue on the inside fitting of the outlet of the drain flange and the outside area of the top of the 2" plumbing coupler pipe you previously set up. Simultaneously seat the drain flange into the thin-set at the pocket of the pan while gluing the outlet of the flange onto your plumbing. Press down to ensure a good seat before the plastic glue sets. If you have complete access to the plumbing underneath, you may break this process into two steps - that is set the flange in thin-set and allow to cure, then later access the plumbing underneath to glue the pipe to the flange outlet.



16. Now trowel out 3/16" notched modified thin-set mortar over the "fleece" region of the drain flange. However, DO NOT yet apply thin-set to the center pocket recess of the flange. Position, press in and set the floor piece(s) using the same installation techniques used previously.



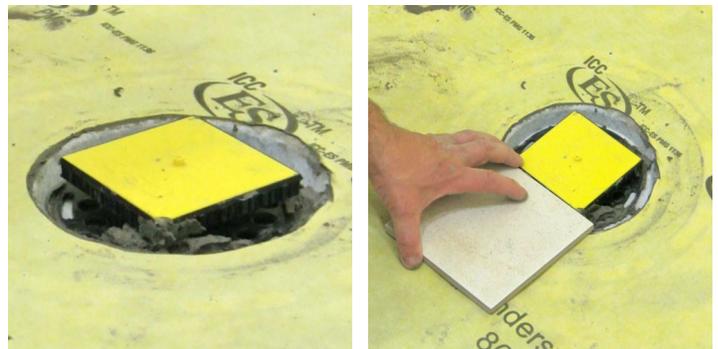
17. Carefully trim out the membrane covering the center flange recess with a sharp utility knife. Use the straight edge of a trowel to ensure that the membrane at the edge of the cut remains well bonded to the flange.



18. Whether you have installed the optional foam curb or have built one out of 2x4 lumber covered with wall board or concrete, the curb will also get covered with waterproof membrane. Apply notched modified thin-set mortar to all curb surfaces, then apply WP membrane using the position, seat and press techniques used throughout the installation. For curb runs longer than the length of the membrane, add additional pieces while observing the 2 inch overlap rule. Using the same techniques used to install inside corners, install an outside corner where the curb meets the wall.



19. Thread riser (with construction plug installed) into riser locking ring (flat black ring with threaded center.) Drop the entire assembly down into the flange's center pocket. Test fit the tile that you will be installing on the floor next to the riser assembly. Make final adjustments to the height of the riser by threading up or down as needed until the construction cover is about flush with your dry-fitted tile.



20. With a margin trowel or small flat blade, push high-quality modified thin-set mortar into pocket and into the locking grooves of the riser locking ring. This process will allow final adjustments while allowing a super solid, strong and well-supported riser and grate assembly after the thin-set has cured.



21. Make final adjustments to the position of your riser assembly adjacent to a piece of dry-fit tile that will be installed on your floor. Turn the riser left or right as needed for proper orientation to how your tile will be installed while still observing an even height between the two. You may move the assembly horizontally at this time if needed or even make a tilt adjustment if necessary. Once you have the correct position, use your tile test piece to check all four sides of the riser. Make further adjustments if necessary. Do not disturb the riser assembly while allowing to dry and cure.



22. If you are able to install tile without disturbing the floor or riser assembly, you may start right away. Be sure to use the notch-size of trowel your tile's manufacturer recommends - usually at least 1/4". If time permits, it is better to allow at least the floor components to cure to hardness before beginning tile installation. Because you are installing tile on a nearly vapor-imperious membrane layer, you will need to allow thin-set to cure to hardness before considering the final grouting phase of your installation.

Additional Considerations

Choosing the highest quality premium modified (latex/polymer) thin-set you can find will make your installation much easier and yield better results. Because of the high cost of shipping heavy materials, most people purchase thin-set mortar and dry-pack mortar components locally. Good quality brand names to look for include but are not limited to TEC, Laticrete, Mapei, Ardex, Custom Building Product (CBP) and others.

- **Despite some claims to the contrary regarding waterproof membranes, modified thin-set is recommended by the Tile Council of America (TCA) for most modern tile installations and provides contemporary standards of performance. Fortunately, your Pro WP is fully tested and backed for use with these superior thin-set mortars. Maximizing air flow in the work area will really help accelerate cure times of your thin-set.**
- **If you are installing very large, heavy tiles on your walls (12 x 18s, 12 x 24s, 18x18s, 24x24s and others), we highly recommend considering use of a "large-format tile" version of modified thin-set mortar. Every major brand has such a version available.**
- **Rather than sealing and resealing and scrubbing grout, we recommend the use of TEC's Power Grout. This grout has been engineered to perform like very expensive epoxies and urethane grouts but offer lower pricing and much easier installation. Power Grout is VERY stain resistant, permanently sealed, won't effloresce or discolor, is easy to install like standard grout, and cures very quickly - 4 hours for dry traffic, 24 hours for light wet use. Most any epoxy-based grout product also provides the highest performance levels albeit at higher cost and installation difficulty. There are also other high-performance grout products available - please consider using some type of high-performance grout product over traditional basic cement types.**
- **If your installation requires a grout color not available in the Power Grout family, use TEC Grout Boost Advanced Pro. Although it will not offer fast cure times, this product will dramatically improve the stain resistance and permanently seal your standard portland-cement grout (made by various manufacturers). Formulations are available for sanded and unsanded standard portland-cement grouts.**