

Technical  
Training  
Series



Common Types of Shower Pan Liners

Ceramic tile showers are water repellant, not waterproof. Approximately two inches of cement mortar is typically found below the tile floor. The pan is installed under the mortar. When you begin using the shower, the mortar becomes saturated with water and remains that way as long as the shower is used regularly. In essence, when you take a shower, you displace the water already in the floor with new water. There are small “weep holes” at the base of the drain fixture that allows the water to move down the drain pipe.

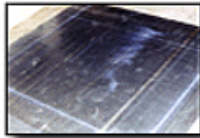
Field fabricated shower pans are made on the job from some type of waterproof material. The material is laid on the sub-floor, brought up the side walls to a point slightly above the curb (dam), folded or bent when using lead or copper. A hole is cut where the shower pan joins the drain assembly.

**Lead/Copper:**

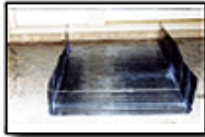
The lead or copper is rolled out and cut to size with extra material allowed to return up the walls. The average life expectancy, for these pans are typically 20 years, due to the oxidation that takes place over time.



Roll of lead sheeting



Roll out & cut to size



Form to shape/size



Weld seams



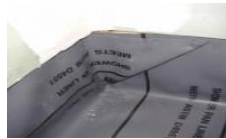
Set in place & test

**PVC**

PVC is the most common type of liner used. The material is available up to 40 mils thick and will last indefinitely, if properly installed. It can also be installed between a pitched mortar base level and a pitched mortar top level. Most manufacturers require specific glues to be used with their waterproofing material.



Cut sheet to size



Fold corners and glue



Cut around drain



Seal and install drain



Secure return up walls

**Pre-Cast Tile-Ready**

This is a one piece tile cast with integrated drains and tile flanges or splash walls. They are leak proof, have the proper slope built-in and are easy to install. The base is best described as a pre-cast base, which after installation is ready to have tile installed on the base. It can be installed in a short time frame and insures a leak proof installation. Most manufacturers require some type of fast setting cement to be installed under the belly of the base for added support.



Molded one piece unit

Type	Pros	Cons	Installation Time	Price
Lead/Copper	Made to any shape/size, can be formed with built in pitch	Requires skilled labor, longer installation time, limited suppliers	Minimum 4 hour installation	\$7.25 square foot
PVC	Widely available, made to any shape/size, easy to install, can be installed by non-skilled labor	Can puncture if not protected, bulging can occur if not installed correctly	Approximately 2 hours (depending on shape/size)	\$2.30 square foot
Pre-Cast Tile Ready	Lightweight, easy to install, durable, will not flex, can be made ADA compliant	Limited to factory sizes, required use of manufacturer's mortar material	Approximately ½ hour	\$600