10 Safe Ways To Waterproof Your Cellar

If you are planning to set up your cellar as a survival shelter or only using it for storage, then make sure it is as waterproof as possible.

Taking care of aging foundations, shifting land under the home, and getting rid of water build up can all be expensive. Water will always go to the lowest level, which means your below-ground basement will always be where it wants to go.

Before you commit to converting your cellar into a survival shelter, be sure you can keep out water and moisture. Here are 120 safe ways to do it!

Managing Foundation Issues from the Outside

Even though there are many ways to address leaking cellar floors and walls from the inside, see what you can do to prevent water from getting through these barriers in the first place.

How To Build a Small Bunker in Your Backyard with $400

Here are some of the most popular ways to address foundation problems from the outer side of the foundation:

Test the soil to see how water is flowing through your property and around the building. If the water is flowing towards the building, or pooling in a specific area, those problems must be addressed first.

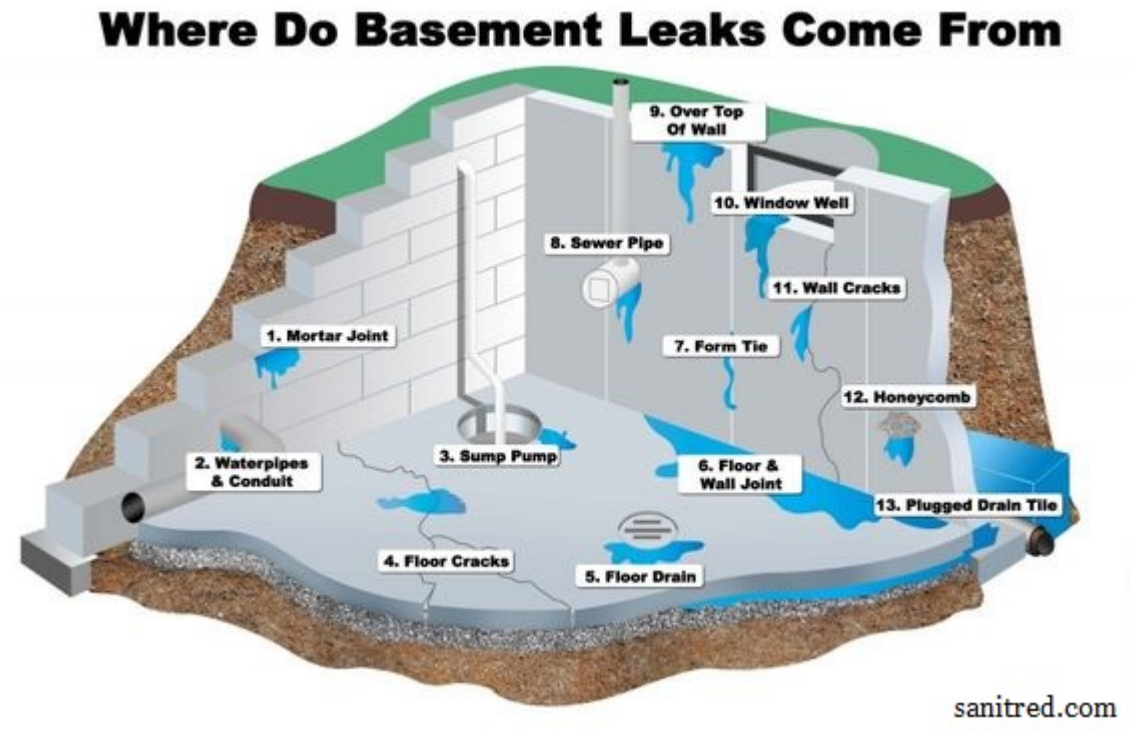
For example, if you find that water is flowing in from the

street and pooling around one corner of the home, you'll need a french drain or some other method to redirect the water away from that corner so it will not get into the basement. Your house and the land around it are settling and shifting even if your basement seems dry and solid right now. Previously dry areas may suddenly become points where damage can mount up can cause the cellar to become damp.

Pay attention to **how rainwater and snow melt gather and move** around on the surface of your property. If the gutters have formed a hollow at the base, fill that hollow in so that the water moves away from the basement and foundation. Actually, make sure that any water draining off the house doesn't collect in depressions along the side of the house.

Examine **the outer structure of the foundation** carefully for signs of cracks, mold, or other indicators that the walls may be susceptible to water getting in. When water freezes, it will expand.

If there is mold or moss growing on the foundation, or you see visible cracks, that means water sitting in the pores of the foundation material can freeze and cause even more damage over time. While your basement may still be dry and not show any signs of major dampness, these outer problems need to be addressed by repairing the cracks and sealing up foundation material as much as possible.



Flexible Sealant Materials

Today, there are many different kinds of waterproofing materials and sealants that can be used to block off moisture and water from getting into your basement.

For example, you can buy relatively thin sealants in gallon cans that also include mold and mildew killing chemicals. These sealants are useful if you already have these kinds of infestations in the basement, however they may need something more robust as an undercoat.

Heavier sealants including flexible rubber or polymer mixtures are likely to offer the best protection from water, especially if they can be used to seal up cracks or are able to penetrate deeply into porous materials.

Don’t overlook fiberglass or other compounds that are used for underwater or other even marine applications. While these compounds may cost a little bit more than conventional basement sealers, they are also capable of providing some additional strength to the structure.

Whether you decide to use products such as Flex Seal, PC-7, Bondo products, or basement sealer with Kilz, pre-treat all surfaces that the sealant will be applied to. Start off with a clean surface, so the sealant will adhere properly, or it will lead to chipping, cracking, or worse yet, water seeping down between the sealant and the surface that you covered.

Remove all debris and growths from the surfaces to be coated, and use primers that may be recommended with each product.

DIY Plastic Bottle Sealant

Maybe you have always kept up with repairs and maintenance for your basement and the surrounding land. Let’s say the area around your home is hit with a hurricane, earthquake, or something else that disrupts the basement.

At the same time, there is also a sufficient breakdown in the social structure that prevents you from buying the sealants required to stop moisture from flowing into the basement.

As bad as these circumstances are, you may still salvage the basement and your home if you act quickly enough. Modern plastic bottles are very easy to melt and turn into a liquid that can be spread onto walls and other surfaces. Melt the plastic in workable amounts and smear it onto areas where moisture is getting in. Roughen up the surface so that the plastic has a better chance of adhering as well as possible to the foundation materials.

This method will also work in a situation where a large scale social collapse makes it impossible to obtain any kind of construction or building repair materials. Regardless of how quickly these materials will vanish, you can more than likely still find plenty of plastic bottles to use as a sealant. Wear a gas mask to ensure you do not inhale the fumes from the plastic as it melts.

Other Sealants You Can Make From Natural Materials

You would be amazed at what nature has to offer in terms of making viable waterproofing sealant for your basement. Here are some additional materials to consider:

- Pine pitch – boiling pine resin and turning it into waterproof pitch is an absolutely essential skill. You can use pine pitch as a glue as well as a waterproofing agent for many different purposes. This includes building a new shelter as well making repairs to your basement.
- Even though vinegar (which you can ferment from apples and many other plant based foods) cannot be used as a waterproofing sealant, it is well known for its ability to get rid of mold and mildew. If you are having problems with a mold infestation and can't find anything else, try using vinegar before you apply the sealant.
- Try making rubber or latex from dandelions or other plants that have milky sap in their stems. Even though it can take a good bit of plant material to make enough rubber, you can work on it a little bit at a time. Do not forget that you do not need to make rubber that is hard enough to use on tires or in other high stress applications. As long as the rubber dries to form a waterproof barrier, it should be enough for your needs.

Improving Air Flow in the Basement

When it comes to driving out moisture and preventing buildup, you will find that air flow is very important: if vents to the basement are clogged with leaves or other debris, cleaning them out may make a significant difference.

If you find stubborn areas where moisture collects along a

wall or the ceiling, try installing another vent in that area. You can also use fans to increase the overall air circulation in the basement.

During the process of studying the impact of air circulation in the basement, you should also take note of anything that generates heat or releases vapor in the process of operating. For example, if you have a water tank in the basement, does condensation build up on it when the water within is cold?

Any surface that allows for a water buildup or a reduction in temperature can create all kinds of problems in conjunction with poor air flow. Use fans and increased ventilation to solve these problems, or direct heat into the area to force the moisture to evaporate faster so that it can be pushed out faster via the increased air flow.

Internal vs. External Drain Pipes

Along with pipes and grading for removing standing water outside and inside the basement, you may also need to install drains.

For example, if water is collecting near the center of the basement floor, it may make more sense to drop it through a drain before moving into a pipe. If you have a dirt floor in the basement,or it is fairly easy to break through, this will also give you a chance to build access tunnels to emergency shelters located elsewhere on the property.

What About Desiccants?

As you progress in your efforts to waterproof your basement, monitor the moisture levels in the air, the air moisture level should be no higher than around 50%, to provide a comfortable environment that reduces the risk of promoting mold and mildew.

While the moisture content of the air will fluctuate through the day and based on external weather patterns, all of your waterproofing efforts will go to waste if you cannot control the air moisture.

If you are trying to manage temporary moisture problems such as ones caused by unusually heavy rains, desiccants can be of use to you. On the other hand, they should not be used on a constant basis as they can mask an underlying problem that quickly gets out of control.

But if you are relying desiccants to control moisture levels in the basement, you may not be able to get a hold of useful materials in a time of need. When you must rely on the basement as a sole means of shelter and storage for your stockpile, you have to keep the basement dry.

Preventing Damage from Burrowing Animals

You may already be focusing on removing tree roots and keeping other plants from helping water erode the foundation, but don’t overlook problems caused by burrowing animals or ones that dig into the ground. Moles, rodents, and animal that can disrupt the soil can act as a potential source of water being able to get into your basement.

If you didn’t pay attention to where and how field mice get into your home, and if you spot them in the kitchen, they may actually be chewing through wooden beams or other structures that connect the house to the foundation and the cellar. Then it is only a matter of time before those mouse holes begin allowing water and ice to get in and cause leaks in the basement.

If you only seal up the basement, it isn’t likely that you will find the source of the leak let alone find a viable means to repair it. Therefore, while you are removing trees, brush, and other plants, see if there are signs of rodents or other burrowing animals that also need to be removed or deterred.

When it comes to keeping burrowing animals away from the foundation of your home, rely on plants to deter rodents and burrowing animals as much as possible. No matter whether you decide to grow spearmint, onions, or other natural repellents for various species of vermin, the plants themselves will increase moisture levels around the foundation. If the plants aren’t actually resting against the foundation and you take good care to keep them properly trimmed, they may deter the varmint without adding yet another source of water to your basement.

Getting Rid of Termites and Other Insects

If you thought trees and rodents spelled disaster when it comes to waterproofing your basement, then you will be amazed at just how many problems can come from insects. Termites and several other insects that consume wood can easily damage beams and other parts of the house that rest on the foundation.

As the wood rots from being broken down, it will also keep more moisture in hidden areas of the foundation. As a result,

if you see any signs of termites or other wood boring insect infestations, it is important to get rid of them as quickly as possible.

It is important to note that a good layer of sealant will keep water out, but that doesn’t mean it can withstand constant attacks from insects. In addition, if the insects have been chewing on the boards in your basement for some time, they are also likely to have laid millions of eggs. Unless you specifically use some kind of insecticide, there is little, if any point to addressing other aspects of waterproofing your basement.

Once you got rid of an insect infestation, consider how to prevent new insects from finding their way in and starting the whole mess over again. If you are taking refuge in your basement during a crisis situation, you’ll need to get rid of any insects that find their way in. Unfortunately, when you are living in close quarters, insecticides are not safe let alone a reasonable option.

Learn how to trap various kinds of insects, and how to repel them in the first place. Similar to rodents and other vermin, you can use various herbs that are either poisonous to certain insects, as well as other that will repel them. Add these herbs to others used for repelling vermin and you should notice a reduction in insect problems elsewhere in the house as well as in the basement.

The Cellar Ceiling is Also a Part of Waterproofing Considerations

There is a natural tendency to focus on the most obvious symptoms of a problem. In this case, seeing water collecting on the floor of your basement may mean that you are looking only at places where the water can come in from: holes in an access window, places where the foundation is damaged, or even

areas with poor water drainage. These are all important aspects, but also take into account changes in the ceiling structure.

Aside from vermin and insects causing damage to wood, there are other things the ceiling can reveal. As the house shifts and settles, beams are warping, or changing their position in relation to each other. Correlate this with information about water collecting in the basement, and you'll discover that more extensive work needs to be done to brace parts of the foundation.

Even if you still wind up applying sealants and building drains, repairing the foundation and adjusting the way the house sets on it's important, especially if you expect the basement to remain liveable during a major crisis.

Finding leaks in the basement can make any home owner cringe. In some cases, the answers to your problems may be relatively inexpensive, while other options may mask the real problem, which will only make the situation worse. It can easily derail any plans you have for using the basement as an emergency shelter.

Whether you have leaks, mold, mildew, or even an unusual odor or sounds in the basement, address these issues as a comprehensive waterproofing plan. You need to have these matters resolved so you can use the basement as a survival shelter!