

Hypertufa

Recipes, Tips & Instructions

Hypertufa is a mixture of Portland cement as well as other ingredients such as peat moss, sand, perlite, or vermiculite and water. It is used to make fake rock containers and other items. Once fully cured, it is weatherproof and should not crack during freezing temperatures. People like it because it can be lighter in weight as compared to concrete or stone, but it has a similar look.

There are probably dozens of recipes for Hypertufa and the recipe depends on the end result you are looking for. Troughs or plant containers will need to be denser to withstand cold climates. If you live in a milder climate, you can usually get away with a lighter weight recipe that contains less Portland cement and more peat moss and perlite. Large projects may require a different mix or may require reinforcing fibers or mesh.

I will try and list the most commonly used recipes here and also the recipes that I use most often. There really isn't a right or wrong way to do it, and you will probably find many different methods as you research further. As I start doing more projects, I will also list any additional ingredients or techniques I found to be useful. You can also check out some of my [Hypertufa Links](#) for more information.

Mixing Hypertufa

When mixing Hypertufa, always mix the dry ingredients well before adding your water, and always wear a dust mask to prevent breathing in the dust of the Portland cement and other ingredients. Once the mix is wet, the mask can be removed. If you have any chunks in the dry ingredients, break them up so that they will mix well with the water. Large pieces of peat or other organic matter can be removed if it won't break up easily. It's OK to mix the dry ingredients with a hoe or spade, but once you start adding the water, you really need to mix it with your hands. I wear rubber gloves to mix Hypertufa. Never mix with your bare hands as the Portland cement is caustic and very irritating to the skin. Check the safety precautions on the bag for more info.

You may also want to wear latex gloves underneath so that you can quickly remove the rubber gloves when it comes time to press the mixture into your forms. If you do that, you may need to buy a rubber glove one size larger than what you usually use. The latex gloves just give you a better feel when it comes time to the detail work. The rubber gloves can be a little clumsy. If you are allergic to latex, there are gloves on the market now that do contain latex.

For the most part, your mix should be the consistency of cookie dough. When you squeeze it in your hand, it should form a ball and very little water should drip from it. If it won't hold together, than you need to add a little more water. If it becomes too soupy, add equal parts of the dry ingredients until it is the right consistency. Too wet of a mix will be weak, but there are some occasions, you may want a wetter mixture, especially if you want a very smooth finish to a piece, but the bulk of your mixture should be on the drier side.

Mixing Hypertufa can be a messy business, so wear old clothes or an apron to help protect you. Making Hypertufa always brings me back to the days of making mud pies as a kid. That might be why I love it so much. Not to mention the gorgeous things you can make, for very little money.

After combining all the ingredients and water has been mixed in well, let the Hypertufa mix sit for 5-10 minutes before pressing it into the mold. You can mist it with a water bottle if the mix starts to dry out too fast.

Recipe #1 - Heavy Duty

This recipe is heavier than most Hypertufa and is ideal for troughs and containers for cold climates as well as large objects and stepping stones. So far this is the one that I have used almost exclusively.

1 Part Portland Cement
1 Part Sterile Potting Mix (No fertilizer)
Water

Note: Most sterile potting mix contains peat moss, some sort of organic matter, like compost and perlite. This recipe is basically the Lazy Man's recipe because it's easy to find sterile potting mixes with no fertilizer. If your local big box store doesn't have one without fertilizer, check with a good nursery. If that doesn't work, try one of the other recipes. This is the recipe I use most often.

Recipe #2 - Heavy Duty

2 Parts Portland Cement
2 Parts Perlite
1½ Parts Peat Moss
1½ Part Contractor's Sand (not play sand)
Reinforcing Fibers (Optional)

Recipe #3 - Nice Medium Beige Color, carvable yet sturdier than some mixtures designed for carving.

1 Part Portland cement
1 Part Peat
1 Part Perlite or Vermiculite
1 Part Contractor's Sand

Recipe # 4 - Very good for carving when partially cured

1 Part Portland cement
1½ Part Peat Moss
1½ Part Vermiculite

Recipe #5 - Lighter Weight Mix

1 Part Portland cement
1½ Part Peat Moss
1½ Part Perlite

Recipe #6 - Good Beginner Mix

1 Part Portland Cement
1 Part Peat Moss
1 Part Perlite or Vermiculite

Additional Notes and Tips

- For mixing use a plastic dishpan, concrete mixing pan, wheel barrow or other large shallow container with smooth insides.
- Add water slowly and mix for several minutes before adding more water.
- Portland cement is powdery and does not contain stones, so make sure you buy Portland cement and not concrete by mistake.
- You can use almost anything for a mold, just remember to use a release agent whenever appropriate. I have detailed instructions on the molds I have used on each project.
- Stay away from stainless steel as a mold unless you cover it in plastic *and* use a release agent.
- Concrete dyes can be mixed in with the dry ingredients to make a different color.
- Stones, shells, tiles and other objects can be pressed into wet Hypertufa or glued onto a finished project using a weather proof construction adhesive.

Aging your Hypertufa Projects

Hypertufa will naturally age over time based on acid and moisture conditions that they are exposed to. If you don't want your Hypertufa projects to weather, you can coat them with a penetrating concrete sealer. There are also ways to encourage moss growth. It takes time, but it can be done.

Growing Moss

Moss likes moist acidic shady conditions to grow well. If you can duplicate these conditions, moss will begin to grow naturally, but it could take anywhere from 6 months to several years to start growing.

Technique #1

Find some moss that is already growing on concrete and attach it to your Hypertufa piece using a mixture of fish emulsion, water and peat moss as an adhesive. Keep moist.

Technique #2

In a blender add a handful of moss (minus the soil) and a can of beer, yogurt or buttermilk and blend just until the moss has broken down. Paint your Hypertufa piece and keep in a shady moist location. Mist daily during hot dry conditions until you start to see moss growth.

Technique #3

Break up pieces of moss by hand and mix with rain water and paint your Hypertufa piece with it. Keep moist.