

## Hypertufa



What is hypertufa, you say? Well, the word was derived from tufa rock which is a soft porous rock. Hypertufa is used for lightweight, porous forms that may otherwise may have been made of only concrete. The ingredients to make it usually consist of peat moss, perlite and Portland cement. This combination makes it ideal for container pots. Sometimes the recipe is varied to include sand, vermiculite, fiber mesh for strength and even a coloring dye. So what do you do with the stuff? That's where the fun lies. Be creative. If you imagine it, you can probably build it. Popular items are bird baths, container pots (troughs) for planting, statues, boulders, etc. This article will concentrate on the process for making a trough.

What do you need to get started?

- A mold (more on this later)
- Plastic sheet Wheelbarrow
- Trowel or spade
- Rubber gloves
- Tamping stick
- Wire brush
- Water container or hose
- Respirator or dust mask
- Hypertufa ingredient



Hypertufa recipe 1	Hypertufa recipe 2
1 pt. Portland cement	1 pt. Portland cement
1 pt. sharp river sand (not beach sand)	1 pt. sharp river sand
1 pt. peat moss	2 pts. peat moss
Hypertufa recipe 3	Hypertufa recipe 4
2 pts. Portland cement	1 pt. Portland cement
3 pts. sand, vermiculite or small gravel	1 pt. perlite
3 pts. peat moss	1 pt. peat moss

## Alternative Mixes

Remember when we said be creative? Vary your mix by adding pine needles, fine bark, seaweed, shells, bones, etc. All these can be used in place of peat moss. All items should be washed and free from salt. Remember that the more cement and sand in the mix, the more watertight your container will be, and heavier. The more peat moss and perlite, the more porous it becomes.

Okay, let's get back to the molds. Some suggested molds are: plastic bowls, waste baskets, vases, cardboard boxes, Tupperware and Rubbermaid containers, even garbage cans. If it tapers and doesn't have an undercut, consider using it. Thrift stores are great places to look for inexpensive items to use as molds.

Pick the recipe you want to work from and mix ingredients in your wheelbarrow using a trowel or spade. Wearing gloves, make sure the peat is moist before combining with perlite. Mix well so there are no lumps. Add sand and/or cement, being sure not to breathe the dust. The mix should be of a consistency that when you squeeze a handful it will hold its form. If you can wring out water when lightly squeezing, it is too moist. Sloppy mixtures will not hold their shape in the mold. The amount of water used has a great effect on the final strength of the trough. If you find your mix too wet, add more dry ingredients to attain the right consistency.

Your mold should be lined with a piece of plastic sheeting as you begin to build your hypertufa container. Using one hand on the outside of your mold for support, place handfuls of the mix on the bottom and insides of your form. Make the bottom about 2" to 3" thick and the sides 1" to 2" thick. Tamp in place to eliminate any air pockets and check your thickness by poking a nail or wire in. Add drainage holes with your finger or build around dowels, removing them when the mold is partially dry. If working in a square or rectangular shape, build the corners a bit thicker for strength. Be sure that what will be the bottom of your container will lie flat enough for the trough to sit level. This is the time to add adornments, such as sea shells, rocks, marbles, sticks, beads, or whatever your creative mind thinks up. Think about turning your mold upside down and building your form over it. It is easier to press adornments to the sides of your trough.

Let your trough dry for 2 to 5 days before unmolding. Total drying time depends on humidity and temperature. Speed drying is not suggested. Test the trough by scratching the surface. If your fingernail leaves an impression it is not ready to unmold. If it doesn't, try the screwdriver test. If the screwdriver scratches the surface with some difficulty, your trough is ready to be unmolded. Once unmolded, smear dry cement on the outside to give it more of a stone-like finish. A wire brush works well for removing flaws or rounding the corners. Tools such as chisels and putty knives can be used to carve in designs at this time. Next, drape it lightly and let dry slowly.

Now comes the hard part. Patience. More Patience. Yes, you have to let your cute little trough sit AT LEAST a month at room temperature to cure. This will make your trough the strongest possible. You will know when it is completely cured by the hollow sound when tapped. The cured concrete will be very alkaline. "Age" your trough for a few weeks to dissolve the free lime from the cement. Leave it out in the rain or water it periodically with a hose. If you really can't be patient, try speeding up the process by soaking the trough in a solution of 1/4 cup vinegar to 1 gallon water or diluted acid (mix of 4 parts water to 1 part muriatic acid) for a day or two. You may want to make your troughs in the fall or winter. This will allow enough curing time before planting season arrives.

If you would like to encourage algae and moss to grow on your trough, paint the outside with a combination of 1 can of beer with 2 sugar cubes mixed with moss. Another messy concoction to try is pulverized moss mixed with buttermilk.

After aging is complete, it is time to plant and enjoy! What to plant, you ask? Small plants that might get lost in a big garden are well suited to troughs. Dwarf conifers, alpines, miniature succulents and other precious little plants are a good fit.