



DALLAS ARBORETUM
Education

Garden STEM at Home
DIY Hypertufa Planter



WE GROW MINDS, TOO.

DIY HYPERTUFA PLANTER



OBJECTIVE:

KIDS WILL CREATE THEIR OWN LIGHTWEIGHT CEMENT PLANTERS USING A METHOD CALLED HYPERTUFA.

BACKGROUND

Hypertufa comes from the word tufa, a natural volcanic rock, and hyper, a prefix meaning extremely; thus, hypertufa means extremely rocklike. In essence, hypertufa pots are meant to mimic carved stone planters – but with a much lower cost.

Recipes can vary based on the source, and we've tried quite a few – it's pretty difficult to mess it up, but here is our favorite mix:

1 part perlite (the white foam you find in commercial potting soils)
1 part peat moss
1 part Portland cement
1 part water; added slowly

Portland cement only comes in very heavy bags (at least 80 pounds) so be sure to have someone around to help if you shouldn't be lifting that much weight.

INSTRUCTIONS

1. Simply mix the three dry ingredients together so that they are equally distributed throughout the mix. You need to wear eye protection, a dust mask and gloves during this process. Have a small bucket of water available and set the dry mix aside.

2. Now you're ready to plan your container shape. One popular method is to use old plastic or metal containers. A quick spray of cooking oil makes removing the hypertufa pot a cinch when you have finished your piece.

Simply choose two containers: one that will serve as the outside of your pot, and one that you will press into the hypertufa mixture to set the inside shape. Another method is freeforming around one container. In this method, you use the outside of the container and shape the hypertufa mix around it. It creates a smooth inside look and a more natural, unfinished look on the outside.

Our preferred method, though, is to create our own mold using old juice cartons (you can also buy new, unused ones online). In this method, you have complete control in the shape and size of your container. You can create a second insert that will help press the inside shape – or you can just freeform.





3. Once you've pre-mixed the dry ingredients and you have your container(s) ready to go, the next step is to slowly add water to your mix. Add water until the mixture reaches the consistency of cottage cheese. Squeeze it in your hand as you mix; it should hold together and drip just a bit of water.

Once you have reached this texture, comes the hardest part. Let it rest for 5-10 minutes. This allows the mixture to set up and you may notice a little heat and a new, Earthy odor. It is now ready to shape.

4. Use any of the methods detailed above and create your container! As you add the mixture to your containers, a rubber mallet can be used to tap around the edges – this helps the hypertufa to settle and removes any large air bubbles.

5. Once you have finished, cover the entire container in a plastic bag. This slows down the drying process, which will add strength to the container. After a day or two, the hypertufa will be dry enough that you can remove the mold. This is a great time to add a drainage hole or smooth out any imperfections. If you're not sure, leave it longer. It won't hurt it and actually produces a stronger pot.

6. You can then remove the bag and the mold. Now you need to allow it to dry in a cool, dry place for several weeks. This drying time varies greatly depending on your hypertufa mix and the weather conditions. The pot will cure to a light gray color, but you can always add powder cement pigments to your water if you want to spice things up a bit!

7. You'll want to fill your hypertufa container with water for several weeks to allow the lime from the cement to leach out before you plant in the container.



ADDITIONAL RESOURCES

Fine Gardening Make Your Own Hypertufa Container article:
<https://www.finegardening.com/article/make-your-own-hypertufa-container>

Lowe's step-by-step guide:
<https://www.lowes.com/n/how-to/make-hypertufa-pots#noop>

Martha Stewart hypertufa how-to:
<https://www.marthastewart.com/268962/hypertufa-pots>