Make a concrete planter

Grab some concrete-countertop mix and build plywood forms to create striking landscape ornaments

BY JOHN CASEY • PHOTOGRAPHY BY KOLIN SMITH

CAN'T FIND a planter quite the size—or price—you like? We'll show you how to make one just in time for spring. These planters are constructed of crack-resistant concrete-countertop mix. The formulation quickly cures to a smooth finish and can be customized with translucent stains in a variety of colors. Don’t be put off by having to work with a new material. Building the plywood forms and casting the concrete isn’t all that difficult. The result is a versatile vessel that works for flowers and large plantings alike.

Follow along as This Old House contributor Christopher Beidel, owner of Perri, a handmade-furniture company in Brooklyn, New York, leads you through the simple step-by-step of making a new springtime accessory for your porch or yard.

Plastics: Quikrete Countertop Mix, $15 for an 80-pound bag. Start: Quikrete Transparent Concrete Stain, $27 per gallon; quikrete.com

COST $30 each
TIME Two days
DIFFICULTY Moderate. Working with concrete requires following a recipe.

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SATURDAY Build the forms and fill with mix (Steps 1–6).

SUNDAY Open the forms (Step 7).

**TOOLS**
- circular saw
- rafter square
- straightedge
- miter saw
- pneumatic nailer
- drill/drive and bits
- caulk gun
- clamps
- large plastic container
- shovel
- masonry trowel
- hammer and chisel

**MATERIALS**
- ½-inch plywood
  - Get one 4-by-8-foot sheet.
- ½-inch fiberboard
  - Get one 4-by-4-foot sheet.
- ¼-inch cove molding
  - Get two 8-footers.
- 1-inch-diameter dowel
- 18-gauge 1½-inch
  - pneumatic nails
- 2-inch drywall screws
- 1½-inch drywall screws
- wood glue
- latex caulk
- duct tape
- vegetable oil
- sand
- Quikrete Countertop Mix

**MAKE THE FORM PARTS**

**A)** Size the form panels. Place the plywood sheet on your work surface, propped up with scrap to allow clearance for the circular-saw blade. Following the cut list, measure and mark the dimensions for the sides, inset panels, base, and cleats of the concrete form. Use a circular saw and a rafter square, as shown, to make the cuts.

**B)** Cut the molding. To frame the four inset panels, you'll need 16 pieces of molding in two lengths. On a miter saw, rough-cut the pieces ¼ inch too long. Adjust the blade to 45 degrees and make the right-hand miter cut, as shown, to all the pieces. Mark the pieces for the left-hand cut, adjust the blade to the opposite 45-degree angle, and cut them to length.
2 MAKE THE SIDES OF THE FORM

A) Attach the inset panels. Mark the location of the inset panels on the four sidepieces for the form. Apply wood glue to the panels and set them in place. Use a pneumatic nailer with 18-gauge 1½-inch nails to secure the panels.

B) Attach the molding. Apply glue around the edges of the inset panels. Place the molding one piece at a time, nailing each one as you make your way around the panel.

TIP Although you can vary the planter’s size according to your needs, the finished walls should be at least 1½ inches thick for adequate strength.

3 ASSEMBLE THE FORM

A) Join the form edges. Set the base of the form on your work surface. Stand two of the sides upright to create one corner of the form, with the wider piece overlapping the narrower one. Use a 1½-inch bit and a drill/driver to make three pilot holes through the face of the overlapping board and into the edge of the other one. Secure the joint with 2-inch drywall screws. Repeat the process for three more corners to form a box.

B) Install the drain dowel. Cut a 1-inch-diameter wood dowel 1½ inches long on your miter saw. It will create a drain hole for the planter. Using a ¼-inch bit, drill a pilot hole through the dowel. Screw it to the center point of the base with a 2-inch screw, as shown.

C) Attach the cleats. With the form centered on the base, place the cleats around it. Secure the cleats to the base with 1¼-inch screws. Use latex caulk to plug all the corners and joints inside the form, to keep the concrete from escaping.

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4 MAKE THE INTERIOR FORM

A) **Cut the pieces.** An interior form made from fiberboard sits inside the plywood form to create the walls of the planter. Draw the four sides and the base on a sheet of fiberboard. Use your circular saw and a clamped straightedge to cut the pieces.

B) **Assemble the form.** Create a box, as shown, using duct tape at the corners to hold the pieces together. Tape the joints on the outside, then tape them on the inside.

C) **Cover the form.** To protect the fiberboard from the water in the countertop mix, cover the interior form in a plastic bag and tape it securely in place.

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5 PREP THE MIX AND FORM

A) **Add water to mix.** Pour a half bag of countertop mix into a large plastic container. Add a half gallon of water and turn the mix with a shovel until it's thoroughly combined and has the consistency of cooked oatmeal. Set the mix aside for 10 minutes to allow it to sit. This resting period helps the water react chemically with the cement.

B) **Lube the form.** Apply oil to the inside of the form to make it easier to remove the planter from the form in Step 7B. Vegetable or mineral oil will work, and a spray-on application makes the task easier.

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6 FILL THE FORM

A) Add the bottom layer. Use a masonry trowel to load mix into the form, bringing the layer up to the top of the drain dowel. Work the mix into the corners, making sure to fill them completely.

B) Install the interior form. Set the interior form inside the plywood form. Fill the form with sand, as shown, to prevent its walls from collapsing or bowing from the pressure of the surrounding mix. Be sure to center the interior form to get an even wall thickness on all sides.

C) Fill the sides. Pour the rest of the dry mix into your container and prepare it as you did in Step 5A. Let the new mix slake for 10 minutes. Then trowel it into the space between the forms, filling it to the top on all sides. Use the trowel to tool the top edges of the walls smooth. Tap the sides of the filled form with a hammer to help remove any air bubbles from the mix. Let the mix cure in the form at least 18 hours.

TIP Rinse the completed planter with warm water and dish soap to remove residual vegetable oil.

7 BREAK DOWN THE FORMS

A) Remove the interior form. Tilt the form on its side to pour out the sand. Stand the form back upright and remove the fiberboard walls of the interior form.

B) Pull the form apart. Remove the screws from the form and the dowel. Gently peel away the sides, as shown, and tilt the planter onto its side. Use your drill/driver and a 1/4 inch bit to loosen the drain dowel, and a hammer and chisel to punch it out.

We finished our planter with a water-based translucent concrete stain from Quikrete. Get a friend to help you haul the planter to its spot, and plant something pretty.