

Do It Yourself

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Concrete Repair

Time: 24 hours over two days.

Difficulty Rating: It's rated a 3 on a scale of 1 to 5.

Materials for Complete Project:

Pressure washer
Wheelbarrow
Margin trowel and finishing trowels
Nose and cove trowel for the steps
Square nose shovel
Knee pads
Paintbrush, paint roller and pan
Weed sprayer
Cement finishing broom
Concrete patch material
Water-based sealer
Stencils
Duct tape and tape measure
Scissors and utility knife
Pump sprayer and primer
Textured spray hopper
Mixing bucket
Drill and paddle
Cementious dye

Note: To determine if your concrete needs repair, tap the concrete with a scraper to test. You want to hear a ping sound, not a hollow sound.

1. Gather the tools and materials.
2. Remove any loose pieces of concrete and debris with the trowel hand tools. Clean up dirt and weeds.
3. Pressure wash the concrete, working in one direction.

4. Tape off the edges where you don't want new concrete.
5. Prepare concrete patch mix:
 - Use concrete with at least 3,000 PSI and good adhesion. The concrete comes with its own bonding material.
 - Put the powder in your wheelbarrow or cement mixer.
 - Add liquid a little bit at a time to a peanut butter consistency.
 - Only mix amount that you can use in 20 to 30 minutes.
6. Roll on a layer of bonding agent -- shove some concrete mix onto top step -- use two trowels, one to lean on while you work with the other.
7. As you're working, use leftover material that's getting kind of hard to fill the holes -- fill hole and trowel over it to even it out.
8. Smooth out high spots with a trowel.
9. Add a second coat before the first coat dries.
10. Mix concrete to a wetter consistency -- a slurry like pancake batter.
11. To test, lay a little down and broom it, if you get a ball it's too dry. If this happens, spray a little water on to dampen.
12. Drag the product across the entire surface with a broom.
13. Work the concrete into the pores of the existing concrete.
14. For the nose of the step (edge) use a nose toll and at cove of step (where steps meet) use a cove toll to shape rounded portions.
15. Add skim coat over entire area.

Decorating Concrete

1. Create "bricks" on the border and split the middle into four squares.

2. Measure for the center line by making a chalk line and pencil marks.
3. Lay the tape with two people to line it up perfectly, keep measuring as you tape to keep it uniform, fold over tape at end to make tab so it's easier to pull off.
4. To create look of brick, tape a brick stencil.
5. Scrub primer into your concrete with a hand brush.
6. Mix darker color gray for steps -- use a 1/2" drill with a mixing paddle.
7. Put cementitious dye into water in bucket and mix.
8. Pour material into hopper.
9. Set hopper gun to medium spray and spray. (Have two people available -- one to mix and the other to spray so the concrete won't dry and create a line.)
10. To create a red brick effect, go over the stenciled area with a light coat of red. Have someone protect the unpainted areas by holding cardboard over those areas.
11. Let set for a few hours before pulling off the tape. Material should be dry before pulling the tape.

Repairing Cracks

1. Chisel and grind the crack to make a wider area for patching.
2. Clean surface of all dust, dirt and loose material -- vacuum the crack.
3. Mix patching material to plastic-like consistency.
4. Dampen the surface with a water spray.
5. Apply the material with a margin trowel or pointing trowel and smooth out.
6. After it's semi-dry, clean edges with a wrung-out sponge.
7. Don't walk on the surface for at least 24 hours.

8. Roll on a water-based sealer after the concrete has cured.