How-To Booklet #3068
Asphalt Drives

Tool & Material Checklist

- Asphalt Driveway Coating
- Asphalt Driveway Patch
- Asphalt Driveway Detergent
- Flat Spade
- Stiff Broom
- Asphalt Applicator
- Cold Chisel/Baby Sledge
- Gloves/Safety Glasses
- Short Length of 2x4
- 4x4-Foot Plywood Panel
- Bucket for Debris

Read This Entire How-To Booklet for Specific Tools and Materials Not Noted in The Basics Listed Above.

Most damage to asphalt is progressive; it seldom goes bad in a day or week, for example. The first trouble signal is a whitish spot on a normally black background. After this initial stage the asphalt will start to fissure and crack. Next will come little, and then big, potholes.

You should renew the asphalt surface about every three years, or when the surface begins to appear whitish, worn or cracked. Depending on the climate in your area this time frame may vary—from 18 months to four or five years. In the South—Florida, for example—asphalt surfaces need attention about once a year because of excessive heat and rainfall. And hard winters with lots of snow and freezing and thawing, can destroy the asphalt even if it was in good repair before the snow. Running a snowplow blade over the surface is also hard on the asphalt.

Application Data. Asphalt driveway (or any asphalt surface) repair and renewal is an easy project for any homeowner/do-it-yourselfer. However, the asphalt has to be already in place, i.e., you are not going to install an asphalt surface over a concrete or gravel base. If you plan to resurface a driveway or walkway with asphalt, this project should be done professionally. Specialized equipment is needed to prepare the base, apply the asphalt, and roll it to a satisfactory smooth surface.

Buy the right products for the project. You will need asphalt driveway sealer to renew the asphalt surface and asphalt or blacktop mix (it comes in a bag like cement) for filling potholes. DO NOT use asphalt roofing cement and asphalt roofing compounds for asphalt drive and walkway surfaces.
PREPARING SURFACES
Asphalt repair and renewal is similar to interior and exterior painting projects: about 90% of the time should be spent in preparing the surface.

Ideally, plan a weekend for the project—one day to prepare the surface and part of another day to apply the fillers and dressing. Also check the weather forecast for the two days: no rain should fall for at least 2 hours after dressing has been applied. The cleaning operation may be completed in the rain, but it’s better done dry.

Here’s a cleaning checklist:

- With a spade, cut all grass and other vegetation away from edges of the surfaces that will be dressed/patched. In short, “edge cut” the edges of these surfaces as you would trim a sidewalk or driveway with a power edger tool.
- Sweep away all debris.
- If the surface is broken or damaged along the edge, dig away the dirt at this edge and use a length of plywood or 2X4 to form the break. Stake the form. Then fill the break, after it is thoroughly cleaned, with concrete. Since the patch probably will be fairly small, it is recommended that you use concrete gravel mix for the patch. You can buy this material in 80-pound bags; it is mixed with water. Shovel the material into the break and pack it tightly. Then level the top of the patch with the straight edge of a 2X4 run along the top of the surrounding driveway surface and the form. Let the patch harden a week or so before you continue the project.
- If the crumbling edges of the surface are not repaired at this time, they will continue to crumble and result in lots of extra work and repair money at a later date.

Sweep the driveway surface clean. Put the debris in a wheelbarrow or bucket so it won’t blow or scatter back onto the surface. It’s a smart idea to sweep out the garage or carport at this time, too. Wind can whip into these openings as you apply fresh dressing and scatter debris on renewed surfaces.

Lift any encrusted dirt deposits with a flat spade. You can scrape the surface hard with the spade without fear of damage.

Mix and apply the detergent to the asphalt surface. Use a stiff broom to scrub the mixture into the asphalt. Don’t skimp. Use plenty of detergent. As you go, rinse away the dirty mixture with clean water. A garden hose does a fast job of rinsing.

Once the cleaning job is finished, let the surface dry thoroughly and then inspect the surface. If you spot any grease or dirt, remove it. The new asphalt topping that you will apply will not stick properly to the surface if it is applied over dirt, grease, overgrown grass patches, moss, grass clippings, and so on. If the surface needs additional patching, do it right now. Make all patches before you apply the top dressing to the surface.

FISSURES, CRACKS, POTHOLES
Asphalt driveway (walkway) sealer will fill fissures and small cracks in the surface without need of patching these breaks with asphalt or blacktop patching compound. But what is a fissure or crack? It is a break in the surface not more than 1/4-inch wide. If you measure breaks more than 3/8-inch wide, the sealer will not fill these breaks. You will have to add patching compound. A pothole needs special attention, as does other large cracks and breaks.

Potholes, cracks, and soft spots in the surface are eligible for patching. The key is to clean the depressions thoroughly, then stick in the filler, tamping down the patch as tightly as you possibly can. You can tell the soft spots because they appear as hollows in the surface and seem to be “wrinkled.” Usually, when you tap a chisel into this surface, the surface will be very soft and it will readily crumble under the hammer blows.

PATCHING PROCEDURES
With the cold chisel, clean the break in the surface. Wear gloves and safety glasses while you operate the cold chisel. Although asphalt is “soft,” the chips can fly and injure.

Remove all soft and crumbly asphalt, and cut back into the harder lower layer. You will probably end up with a fairly large crack or hole, although it started out small. But if you don’t get all the old stuff out, the new patch will soon pop out of the break. Or the patch will stay in the break and the area around it will disintegrate.

Asphalt ridges may be the problem rather than cracks. To remove the ridges, you will have to chisel off the high spots back to the level spots. This makes a very wide patch, so unless the appearance of the ridge bothers you, don’t go to the work of leveling it.
Clean out the break using the stiff broom. You may want to flush out the break area with water from a garden hose. If you do use water, do not apply the patching compound until the area is dry. Otherwise, the patch won’t stick.

Position the patching compound into the break, filling the area slightly above the surrounding surface. If the cavity is large, tap the mixture as you fill the hole to compact the mixture in layers. Top off the patch by mounding the mixture so it is slightly higher than the normal level. Tamp the patch with the end of a 2X4.

Now place the scrap plywood over the patch and drive your car over the flat wood. The weight of the car will compress the patch into the cavity—like a steam roller. If tight quarters prohibit the car trick, you will have to tamp the patch tight with the 2X4.

The patching compound compacts best when the temperature outside is 70 degrees or higher. If you must make repairs in colder weather, preheat the patching compound by leaving it inside your house until warmed up to room temperature. **DO NOT** heat the patch with a propane torch or open flame.

Once you have filled the cavities you may want to add top dressing, as discussed below, to finish the project. But let the patches set and “cure” before you apply the dressing.

**APPLYING DRESSING**

Driveway sealer comes—usually—in 5 gallon containers, although you can buy 1 gallon containers. The square footage the liquid amounts will cover is noted on the labels on the containers. These figures are fairly accurate, although it is recommended that you buy about 10% more sealer than the labels suggest. You probably will have to recoat a couple of spots after the sealer has dried and you will need the extra for this project.
Home center stores and building material outlets that sell the sealer also will sell an applicator for the sealer. It is a long-handled brush with a squeegee along the top edge of the brush and the brush on the other edge.

Apply the dressing in wide ribbons to about 35 square feet of surface. You can pour the coating directly out of the container onto the surface, which is easier than trying to dip the applicator into the bucket. Spread the mixture out evenly, using the brush on the applicator. Work the dressing onto the surface, making sure the tiny cracks are filled and that the dressing is above the cracks. You can see this.

With the squeegee, level the topping on the surface with light, even strokes that go one way. The trick is not to leave any puddles of topping on the surface, but to level it out. However, don’t skimp on the dressing. The squeegee can take it down to the original surface, which you don’t want to do. Just make it fairly thick and even across the surface.

**Complete the entire surface.** Then wait 24 hours or until the dressing is dry to the touch. At this time look for missed spots. If you see any spots that look extra dry, or spots that you missed completely, go back over these areas with more dressing. If most of the surface looks “dry,” then give the entire surface another coat. Let the job set at least 36 hours before you drive your car onto the surface.

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Fill the hole with blacktop mix and tamp it down with the edge of the spade as best you can. Then use the end of a 2x4 or 4x4 to compact the mix into the hole. Continue filling and tamping until the mix is slightly above the level of the surrounding surface.

Cover the patch with a piece of scrap plywood or hardboard. Then drive a wheel of a car over the wood and patch. The weight of the car will compact the patch into the hole like a steam roller. Then wait for the patch to harden; brush on the drive-way sealer. Let the job set about 36 hours or more before you walk or drive on the freshly-coated surface.