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ASPHALT DRIVEWAY REPAIR

Those small cracks and depressions in your asphalt driveway can cause a whole lot of destruction. They provide places for water to work its way into and under the pavement; when that water freezes in the winter, it will expand – cracking apart the asphalt and even heaving up whole sections of the driveway, like icebergs. In most cases, the solution to this problem is fairly easy. A few hours of maintenance each fall will help avoid such destruction and extend the life of any asphalt drive.

Asphalt is basically made up of coal tars and fine gravel. When a driveway is installed, this compound is heated, spread out evenly, and compressed in place. After it cools, it becomes hard enough to retain its shape under the weight of your car. However, over the seasons, as the sun and the elements cook out the oils in the coal tar, the gravel is no longer held so tightly together. Cracks develop, and then chunks of asphalt fall out. The trick to ensuring a long life for your drive is keeping it sealed, to slow down the effects of the elements.

Before applying traditional sealers, you should fill any cracks and depressions in the existing asphalt. Ideally, this should be done several days before you seal the drive, to allow the materials to cure properly. To repair small cracks (up to about a finger width), use an old screwdriver or masonry chisel to clean all loose or broken materials out of the crack, remove any grass or weeds, and apply an herbicide; then fill the crevice with **crack filler**. (Crack filler is available in pour-bottles with spouts that let you pour the material right into the crack or in cartridges used with a caulk gun. It can be purchased at building supply or hardware stores.) The crack filler will harden, but remain pliable enough to stay in place despite temperature extremes.

For larger cracks or shallow craters, first clean them out as described above. Scrape away any build-up of grunge; then, remove oil or grease stains by scrubbing them with driveway cleaner or TSP or by coating them with a primer that covers oil spots. Next, fill the hole with **cold patch,** an asphalt repair material that is available in 80-pound bags at most lumber yards or hardware stores. (If you leave the bags of cold patch in the sun for several hours before installing the material, it will be easier to work with.) After you have filled each hole, use a rake to smooth out the cold patch, mounding it a bit higher than the surrounding surface. Then, compress the filler with a lawn roller, an asphalt tamper, or even your car driven over a board placed on top of the patch. When it has set, in a day or so, the patch will retain its shape.

Chuckholes or potholes are filled in much the same way. Make sure you dig out any dirt or loose materials to a solid base. The patch will hold best if you undercut the edges a bit, so the patch is wider at the bottom than at the top. If the hole is deeper than four inches, fill it with sand to a 4” depth. Then, add the cold patch in 2-inch layers, tamping after each layer. The final layer should start within an inch of the top; mound this last layer of cold patch slightly above the surrounding edges and tamp it down as described previously.

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After the crack filler and cold patch have cured, you'll be ready to seal your driveway. Ideally, **you should do this job each fall** while the weather's still nice (see the product label for the number of hours without rain that the sealer will need to cure, and for the minimum overnight temperature required.)

Until recently, your only choice for this job was traditional asphalt sealer. With this type of sealer, the material you buy definitely affects how long the repair will last. Better quality materials will have a higher ratio of "product" to liquid, while poorer quality materials are little more than black water. Generally, the more expensive the sealer, the better the quality. Your best bet is to **buy a good quality sealer with some grit or sand in it** to provide traction for wet days and to help fill any small cracks that remain.

Newer types of asphalt sealer, while more expensive, can make the job significantly easier. Combination sealer and filler products eliminate the need for filling cracks before sealing. (You'll still need to fill any depressions with cold patch.) Some sealers reduce or eliminate mixing, and gel-type products don't splash as much as traditional sealers.

With all sealers, the product label will tell you how many square feet each can will cover, but it's a good idea to buy some extra and return what you don't use. (Some driveways, especially those that haven't been coated recently, can absorb a lot more sealer than you might anticipate!)

In addition to the sealer, you'll also need to buy one or more **asphalt spreaders** for applying the sealer to your drive. The squeegee type will give you a smooth finish, while the bristles on the combination squeegee/brooms will leave visible brush strokes. While some types of asphalt spreaders are meant to be re-used, most are disposable.

For this job, **wear old clothes,** as you usually can't wash out sealer that splashes on your pants or shoes. (A petroleum-based waterless hand cleaner will remove sealer from your skin.) Before you start, clear the grass away from the edges and sweep the drive down well. If you didn't do so earlier, remove any oil or grease stains as described above, and rinse the area thoroughly. You're now ready to apply the sealer. Follow the manufacturer's instructions regarding whether the driveway surface should be wet or dry. With traditional sealers, you'll need to mix each bucket thoroughly for about five minutes, so any product that had settled on the bottom is suspended throughout the liquid; while you can stir by hand with a stick, using a power mixer will be easier.

Start near the garage and pour a line of sealer across the width of the driveway. Take care not to splash any sealer onto walls, foundations, or garage doors. Spread it evenly with an asphalt spreader to about an 1/8" thickness. When you have spread this first amount, pour another line of sealer and spread it out. Work your way in this manner to the street. (It will help if you have previously placed your buckets of sealer at intervals along the drive.) Place a barrier at the end of your drive to warn people to keep off the wet surface.

The product label will tell you how long you'll need to stay off the drive, to give it a chance to dry thoroughly. Avoid tracking the sealer into the house – it will be nearly impossible to clean off carpets and flooring.