

Driveway Sealers and the Environment

Help protect lakes and rivers from harmful chemicals



Driveway Sealers work wonders for giving your drive-way or parking lot a fresh look and for eliminating unsightly cracks. When it comes time to seal your driveway you will have a choice between different types of sealants, some of which are more harmful to the environment than others. Whether you are doing it yourself or hiring a contractor, here are some tips for making choices that will help protect our local lakes and rivers.

RECOMMENDED READING

Robinson, M. et al. 1984.
Comparative carcinogenic and mutagenic activity of coal tar and petroleum asphalt paints used in potable water supply systems.
Applied Toxicology; 4(1): 49-56.

Mahler, B.J. et al. 2010.
Coal tar based parking lot sealcoat: an unrecognized source of PAH to settled house dust.
Environmental Science Technology; 44(3) 894-900.

Victor Li, 2010.
Ontario's Coal Tar Sealant Work 2009-2011.
Environmental Protection Operations Division – Ontario.
http://www.epa.gov/greatlakes/bns/integration/Jun2011/Li_6152011.pdf

Bryer, P. Et al. 2006.
The effects of coal tar based pavement sealer on amphibian development and metamorphosis.
Ecotoxicology; 15(3) 241-247.

Neff, J M. 1979.
Polycyclic aromatic hydrocarbons in the aquatic environment. Sources, fates and biological effects.
Applied Science Publishers Ltd. London.

Asphalt-Based Sealers

This is the more environmentally friendly alternative for asphalt sealers but it tends to cost a bit more than coal tar based varieties. Asphalt based sealers do contain harmful polycyclic aromatic hydrocarbons but in significantly reduced amounts compared to coal tar based sealants. To avoid the use of these harmful sealants altogether, have your driveway made of concrete, gravel, or lockstone. Gravel or lockstone bricks make excellent choice as they are permeable and will assist with proper drainage and water flow. Most contractors will carry this more environmentally friendly sealant and generally prefer to use it on their jobs.

Coal Tar Sealers

These tend to be a popular choice for those who are very serious about repairing their driveway as this type of sealant will yield the longest lasting results. However, coal tar is known to be a human carcinogen. It also contains polycyclic aromatic hydrocarbons which are toxic to aquatic life. Unfortunately, once these harmful toxins are used on your driveway they do not stay put. When the rainfall comes, the contaminants from coal tar sealants get swept through the drainage system and into surrounding soil, streams, rivers, and lakes.

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How Often to Seal

According to sealant manufacturers and asphalt contractors, a driveway shouldn't require sealing any more than every three years. Exceptions to this would be to those who are located in areas with harsh conditions, such as far South or desert areas. Asphalt needs to be resealed when you notice it starts to turn grey. To give you an idea of how much sealer you need, an 8L bucket of sealer will cover up to 79m² (850 sq. ft.) depending on the condition of the surface. An 8L bucket of asphalt-based sealant with a 5-year warranty will cost you around \$60. A 17L bucket of airport grade coal tar sealant can cost around \$30 and will cover around 42m² – 55m² (450-600 sq. ft.).

The Choice is Yours

When the time comes to put a coat of sealant on your driveway you can take the do-it-yourself route or hire one of several local companies that provide the service. Many of the local contractors carry the coal tar sealants as well as the more environmentally friendly asphalt-based sealants. Local retailers also carry both types of sealants. When contracting work make sure you specify which kind of sealant you would like used on your drive-way. When doing it yourself be sure to read the labels on the sealant you are purchasing. The do-it-yourself route will be the most inexpensive. Hiring someone to do it for you will generally cost anywhere from 15-25 cents/square foot of your driveway.

