

# Comparison Chart of Concrete Sealers

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Sealer Type	How They Work	Primary Applications	Type of Finish	Performance
<b>Penetrating sealers (includes silanes, siloxanes, and silicates)</b>	Penetrate and react chemically within the capillaries of the concrete to shield against moisture penetration and deicing chemicals.	Exterior concrete surfaces subject to corrosion and freeze-thaw damage. Where a natural, matte finish is desired.	Provide invisible protection without changing the surface appearance or leaving a sheen.	Provide excellent protection against outdoor exposure conditions. Most products are also breathable, allowing moisture vapor to escape.
<b>Acrylics</b>	Form a thin protective film on the concrete surface. Available in both solvent- and water-based formulations.	Both exterior and interior concrete. On projects where easy application and economy is important. To enhance the beauty of colored, stamped or exposed-aggregate concrete. On fast-track projects, since acrylics often dry to the touch within an hour.	Available in a range of sheen levels. Solvent-based acrylics generally enhance color better than water-based products.	Provide good protection against water and chloride intrusion, but usually wear faster than polyurethanes and epoxies. Solvent-based acrylics generally perform better than water-based products for outdoor use. On indoor surfaces, softer acrylic sealers usually require regular maintenance with several coats of a sacrificial floor finish, or wax, to prevent wear and black heel marks.
<b>Polyurethanes</b>	Form a high-build protective film on the concrete surface. Available in both solvent- and water-based formulations.	Both exterior and interior concrete. On floors in high-traffic areas, to provide good resistance to scuffs and staining. To enhance the beauty of colored, stamped or exposed-aggregate.	Available in a range of sheen levels. Finish is transparent and non-yellowing.	Nearly twice as thick as acrylic sealers, and produce a very durable chemical- and abrasion-resistant finish. Most urethanes are moisture intolerant until they cure, so no water should be present on the surface when the sealer is

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<b>Epoxies</b>		concrete concrete countertops		applied.
	Form a high-build protective film on the concrete surface. Most are two-component products mixed prior to application.	On floors in high-traffic areas Cement-based overlays Concrete countertops May yellow with UV exposure, so generally limited to interior use	Available clear or pigmented, if you wish to add color. Most products impart a glossy finish.	Produce a hard, long-wearing, abrasion-resistant finish. Also offer excellent water repellence, but some products are impermeable and could trap moisture in the concrete

*\*Note: Always check with the sealer manufacturer to verify the compatibility of its product with the decorative surface you plan to apply it to.*

## Answers to the Top 10 Sealer Questions

Answers to frequently asked sealer questions from a technical expert Bill York, technical advisor, V-SEAL Concrete Sealers

Owners of newly installed concrete are often told by their contractors to seal the concrete. What they usually aren't told are the basics, such as why they should seal it, the best product to use, how to apply it, and suitable applications. Answers to these questions aren't easy to come by when you shop for sealers at a building supply store or on the Internet. Instead, you're typically bombarded with a confusing array of performance claims and scientific terms.

To give you some simple answers to the top 10 sealer questions asked by users, Bill York, technical advisor at V-SEAL Concrete Sealers, Lewis Center, Ohio answered some questions. Here is his plain-language advice for new installers

1. **What surfaces should I seal?**

Exterior concrete in any region subject to freeze-thaw cycles should be sealed . Many people are surprised to learn that freeze-thaw regions include all of New Mexico, most of Texas, Alabama, Georgia, South Carolina, and even portions of California, Louisiana and Florida. In other regions, concrete should be sealed for specific purposes such as stain repellence, dust reduction, abrasion resistance, chemical resistance or to maintain an attractive appearance.

2. **What happens if I don't seal my concrete?**

Concrete is a porous material that readily absorbs liquids. In freeze-thaw climates, the expansion of frozen liquids can destroy the surface of unsealed concrete. Oil, salt, fertilizer, and other household chemicals can discolor and damage unsealed concrete.

3. **How much does sealer cost?**

[Acrylic-resin sealers](#) and chemically reactive [penetrating sealers](#) (silanes, silicates, siloxanes and siliconates) generally cost \$0.15 to \$0.25 per square foot. High-performance topical coatings, such as [epoxies](#) and [urethanes](#), will cost more -- typically \$0.50 to \$2.50 per square foot. In most cases, the investment in a sealer is well worth the expense, when you consider that the cost to replace concrete is generally \$7 to \$8 per square foot.

4. **How will my sealed surface look?**

That all depends on the type of sealer you apply. Most chemically reactive sealers are nearly invisible because they penetrate into the concrete. Solvent-based acrylic resin sealers and epoxies provide significant color enhancement and give concrete a high-gloss wet look. Water-based acrylic resin sealers provide moderate color enhancement and a satin appearance. Urethanes (generally applied as topcoat over epoxy) are available in a wide range of finishes, from matte to gloss. Many sealers can also be colored with translucent or opaque tints.

5. **How is sealer applied, and can I apply sealer myself?**

Many sealers can be applied by a do-it-yourselfer using simple tools, such as a paint roller or pump-up sprayer. These include acrylic-resin sealers, reactive penetrating sealers, 50%-solids epoxies and 50%-solids urethanes. High-performance sealers such as 100%-solids epoxies, [polyaspartic urethanes](#) and polyureas require professional installation using special tools and application techniques.

6. **When do I apply sealer?**

Most acrylic-resin sealers and certain reactive penetrating sealers (siliconates and silicates) should be applied as soon as new concrete can withstand the weight of the installer. Other

reactive penetrating sealers (silanes and siloxanes) and most high-performance coatings, such as epoxies and urethanes, should only be applied after the concrete is fully cured (generally 28 days). Almost all sealers can be applied after concrete is 28 days old.

**7. What will my sealer repel?**

Again, that depends on the product you use. To repel water and deicing salts, use an acrylic-resin sealer or reactive penetrating sealers. If you also want to repel oil stains, use a silicate (a type of reactive penetrating chemical sealer). Be aware that acrylic-resin sealers may be weakened by petroleum distillates, and reactive penetrating sealers are generally weakened by acidic chemicals that chemically etch concrete. For resistance to these substances, use a high-performance epoxy or urethane system.

**8. Will sealer make my concrete slippery?**

Reactive penetrating sealers generally have little effect upon the concrete surface profile or traction. Most topical coatings can affect concrete surface profile, and may require the use of anti-skid additives in areas exposed to foot or vehicle traffic (see [Making Concrete Slip Resistant](#)).

**9. How long will my sealer last?**

Because they penetrate the concrete, reactive chemical sealers will last the longest and generally only wear away if the substrate surface itself wears away, which may be 10 years or longer. You can get similar performance by using an epoxy or urethane system, which generally lasts 5 to 10 years depending on traffic exposure. Acrylic-resin sealers offer the shortest performance life - generally 1 to 3 years.

**10. Is sealer environmentally friendly?**

Concrete is locally made and can last for many decades with proper care. As sealers extend the useful life of concrete, they are an important component of "green" building and their use can qualify for additional LEED points. As for the sealer itself, water-based products are generally considered the most environmentally friendly. Some solvent-based sealers can't be sold in certain states, but new environmentally friendly solvents are now available. Contact your concrete sealer supplier to learn more about the regulations in your state.

