

Bare concrete is porous and vulnerable to staining and chemical attack. Liquids will tend to soak into the surface, carrying stains into the concrete itself. Acidic substances like vinegar and lemon juice will dissolve the cement paste, etching the surface. It must be sealed to protect it from stains and etching.

Our reinforced cement is a mixture of crack resistant Portland cement and fiberglass. These materials are cast into a mold and mixed to create a beautiful and durable finished product. There are pros and cons to every type of concrete sealer. Our cement products are sealed with a penetrating sealer because it is heat resistant and UV stable, and keeps the natural look of concrete. However, it does not provide good stain resistance. To avoid staining, we recommend our clients apply a wax sealer periodically. ** See chart below for reference.

Penetrating sealers are liquids that are applied to bare concrete, soak in, and then once wiped off and dried, are usually nearly invisible. They often do not affect the appearance of dry, bare concrete. Some leave it looking dry, while a few provide a darker, wet (but not very shiny) look. Penetrating sealers either work by reacting with the concrete to decrease its porosity and increase the surface density (the hardeners/densifiers) or by increasing the surface tension to cause beading (the repellents).

Penetrating sealers work best for concrete that gets infrequent or brief exposure to water, mild staining agents and non-acidic substances, and where cleanup is likely to happen quickly. Tabletops (like end tables or coffee tables), fireplace mantles, and hearths are good examples of where penetrating sealers work best.

Sealer Chart

Type	Stain Resistant	Heat Resistant	Scratch Resistant	Sheen Comments	UV Stable	Easy to Apply	Easy to Maintain or Repair	Other Comments
<u>Penetrating</u> Densifiers: -sodium silicates -potassium silicates -lithium silicates Repellents: -silanes -siloxanes -fluoropolymers	N (Generally no, but some stain resistant systems involving lithium silicates are in development)	Y	Y	Sheen and color enhancement vary	Y	Depends on exact chemical and manufacturer	Y	Once repellents are applied, no other sealer except wax can be applied over
<u>Wax</u>	N	N	N	Natural medium to high sheen	Y	Y	Y	Has to be reapplied frequently
<u>Acrylic</u> -Solvent-based -Water-based	Slightly	Slightly	N	Solvent-based: wets out Water-based: dry look	Y	Y	Solvent-based: Y Water-based: N	Easily scratched, needs to be repaired frequently
<u>Epoxy</u> -Solvent-based -Water-based -100% solids	Y	N	N	Glossy, thick, plastic look	N	N	N	Stain-proof, but makes concrete look like plastic
<u>Urethane</u> -1-part/2-part -Water-based/ solvent based	Y	Y	Y	Usually glossy, but matte versions are available. Often thick, but there are techniques to apply thinly.	Y	N	N	Tricky to apply; very dependent on surface preparation