

WHAT ARE THE DIFFERENT TYPES OF SEALERS?

Sealer Type	Primary Applications	How They Work	Type of Finish	Performance
Penetrating sealers: Silanes and Siloxanes	Exterior vertical/inclined concrete surfaces subject to corrosion and freeze-thaw damage where a natural, matt finish is desired.	No film on surface. Penetrate and react chemically within the capillaries, repelling water and all waterborne contaminants.	“Invisible” protection without changing the surface look or leaving a sheen.	Excellent resistance to exterior exposure conditions. Breathable, allowing moisture vapour to escape. Less effective on very porous surfaces and when water is forced into the surface. Not recommended on horizontal surfaces. No protection against dirt.
Penetrating Sealers: Siliconates	Finished masonry articles such as tiles, bricks and ceramic pots.	As above.	As above.	Excellent protection when used for the recommended application. Most are sensitive to alkaline environments, so are not used in concrete.
Penetrating sealers: Silicates and Colloidal Silica	Concrete floors, especially prior to polishing.	No film on surface. Penetrate and react chemically, forming a hard surface and physically blocking the pores.	“Invisible” protection. Can be polished to a glossy finish.	Good protection without further treatment but protection is improved by polishing and/or suitable coating.
Coatings: Acrylics	Both exterior and interior concrete. Easy application and economy. Enhance the beauty of coloured, stamped or exposed aggregate concrete. Often fast drying, allowing quick return to service.	Form a thin protective film on the concrete surface. Available in both solvent and waterborne formulations. Selection of correct grade is important to provide desired performance.	Range of sheen levels. Solvent-based acrylics generally enhance colour more than water-based products.	Good protection against water and chloride intrusion. Usually less abrasion resistant than polyurethanes and epoxies. Solvent-based acrylics generally better where water ponding occurs. Softer acrylics usually require regular maintenance with several coats of a sacrificial floor finish, or wax, to prevent wear and tear.
Coatings: Polyurethanes	Suitable for exterior and interior. On floors in high-traffic areas, to provide good resistance to scuffs and staining to enhance the beauty of coloured, stamped or exposed-aggregate concrete. Concrete countertops.	Form a high build protective film on the concrete surface. Available in both solvent and waterborne formulations. Both single pack and two-component versions available.	Available in a range of sheen levels. Finish is transparent and non-yellowing.	Higher build (thicker film) than acrylic sealers, and produce a very durable finish resistant to abrasion and chemicals. Most urethanes are moisture intolerant until they cure, so no water should be present on the surface when the sealer is applied.
Coatings: Epoxies	On floors in high traffic areas, cement based overlays and concrete counter tops.	High build protective film on the concrete surface. Most are two-component products mixed prior to application.	Available clear, can be pigmented. Most products impart a glossy finish.	Hard, long-wearing, abrasion and heat resistant finish. Breathability variable depending on particular product (moisture could be trapped). May yellow and chalk with UV exposure, so generally limited to interior use.

WHICH SEALER IS BEST FOR MY PROJECT?

Primary Applications	Type of Finish	Performance	Product	Description	W/S	V/H
Exterior vertical / inclined concrete surfaces.	Natural matt finish, invisible.	Breathable, allows moisture to escape. Less effective on very porous surfaces and when water is forced into the surface. No protection against dirt. Excellent resistance to weathering.	Aquellux S	Hydrophobic treatment, no surface film.	S	V
Exterior vertical / inclined concrete surfaces.	Natural matt finish, invisible.	Waterborne version of Aquellux S, non-flammable, safer to use. Less penetrating in very dense (less porous) surfaces.	Aquellux S WB	Same as Aquellux S.	W	V
Masonry articles (tiles, bricks, ceramic pots), natural stone, damp walls / inclined surfaces.	Natural matt finish, invisible.	Not long-lasting on concrete (alkaline environment). Can be applied to damp substrates and overcoated later with AQUELLUX S or S WB. Works well on Oamaru stone.	Aquellux #2	Similar to Aquellux S WB.	W	V
Oamaru Stone, very porous masonry.	Minimal change to natural appearance.	Breathable, allows moisture to escape. More effective than Aquellux alone on highly porous surfaces. Binds surface of Oamaru stone providing additional protection against wear.	Silac	Treats and partially blocks pores.	S	V
Concrete floors, especially prior to polishing. Reduces dusting.	Invisible. Can be polished to a glossy finish.	Good protection without further treatment but protection is improved by polishing and / or suitable coating.	Dustguard	Penetrates to form a hard surface. No film on surface.	W	H
Exterior and interior concrete. Fast drying. Suitable for ponding water.	Semigloss to low sheen, dependent on number of coats.	Good protection against water intrusion. Easy to repair or recoat. Flammable & odorous. Also available in Grey (non-transparent) and in non-slip textured finish.	Hardcoat	Thin, transparent, protective film.	S	H
More porous substrates where early application and / or higher gloss is required.	Semigloss to full gloss "wet look" with more coats.	Similar to Hardcoat. Excessive film build when substrate contains water may cause problems. Suitable for ponding water. Also available in Satin and non-slip textured finish.	Same Day Sealer (SDS) also Satin	Thicker film than Hardcoat.	S	H
High end uses: ornamental objects, floors, exterior and interior.	High quality finish, matt, smooth feel.	Similar to SDS but with exceptional matt finish. Wide range of uses, suitable for ponding water.	Premium Matt Sealer	Lower gloss version of SDS Satin.	S	H
Highly porous surfaces. Concrete blocks and all vertical concrete, masonry and wood.	Satin, also available in gloss.	Excellent protection and excellent resistance to weathering. Low breathability.	ProtectaCoat, Concrete Block Sealer	High build transparent protective film.	W	V
For horizontal surfaces, suitable for ponding water.	Gloss, also available in satin / matt.	Excellent resistance to weathering. Improved abrasion resistance.	WBHP Concrete Sealer	Thin, transparent protective film.	W	H

KEY: W = waterborne S = solvent based V = vertical surface suitability H = horizontal surface suitability