

## TINTED SEALER APPLICATION GUIDELINES

**DESCRIPTION & DIFFERENCES:** Concrete sealers marketed through Specco LLC are available in either clear or pigmented formulations. The pigmented (tinted) versions of the sealers are sometimes referred to as concrete stains, and these should not be confused with conventional paints.

Paints are manufactured using the addition of fillers, clays, or hiding components that provide an opaque or solid product. These added ingredients allow paints to completely block out, or “hide” the base substrate however; these same ingredients can also allow the resulting coating to possibly chip, flake or peel over time due to weather cycling, moisture entrapment, and sun exposure. Specco adds only U.V. light stable colored oxides to our acrylic sealer base product, with no fillers or extenders, providing a semi-transparent stain-like product that can penetrate, bond, breathe and resist weathering more effectively than paint.

Our tinted sealers should also not be confused with “acid” or reactive type concrete stains that are available in the market, which actually burn the color into the substrate, providing more mottled or natural color tones. Specco tinted sealers are categorized as “film former” acrylic types, which will leave a thin polymer layer over the existing substrate. The resulting sealer’s film typically last 2-3 years depending on abrasion, vehicle and foot traffic, sun exposure, and weathering cycles.

**COLOR OPTIONS SELECTION AND COVERAGE:** Specco currently blends all of the color tones available on the Davis Concrete Color Card and this color card offers a wide range of 40 various earth-tone colors to choose from. The tinted sealers are made to order in 5 gallon minimum quantities. Any colors not shown on the chart can also be blended after a sample color chip is provided, with a resulting small pint sample submitted to the end user for approval prior to any scale up. There is typically a 25 gallon minimum for special order colors.

As with any manufactured colored product, there is a natural deviation from the paper-based color card to the actual applied concrete tint color obtained. **These tinted sealers will be made to order and are not returnable.** Therefore, the sample color selected should be applied to the area to determine if the color provides suitable tone, shade, hide and appearance. This sample should be placed on an area representative of the substrate to be sealed to make a fair determination. For job estimations, the coverage rate is between 150 and 250 square feet per gallon. A second coat will generally cover a slightly larger area due to less absorption, but it is safer to estimate on the low side of the specification so that enough material is on hand once the project has began.

**COLOR VARIATIONS & LIMITATIONS:** Concrete is a natural material and there are many variables that occur in the mixing and placement that affect the finished product. These include cement and aggregate types, admixtures additions, water content, finishing technique, curing procedures, temperature, humidity, wind, etc. Subsequently, the finished concrete mineral base can have slight variations in surface color uniformity, color tone and substrate porosity.

Clear “film forming” acrylic based sealers, such as Specco Pebblesheen 350 or Pavesheen 350 brands will accentuate or highlight any variations in color and texture of the slab, resulting in a darker or sometimes glossier appearance. The degree of the color change is dependent on the sealer solids content, viscosity, and polymer composition. This effect may not be desirable depending on the aesthetics desired by the end user. Penetrating type sealers or water repellents, such as Specco Waterstopper S-10WB or Waterstopper S-20 Siloxane brands, will typically leave the concrete color the same shade as before application, providing a lighter substrate with less surface color variations. These may be preferred choices for large expanses of plain concrete such as driveways, sidewalks and patios.

If a tinted sealer is selected, it is usually to help hide or even out color variations in the substrate, to help add uniformity to a decorative colored job, or to provide color to the substrate to offset a building or residence. When the tinted sealer is applied, some areas of the slab that are more porous can absorb more material resulting in an initial or mottled (spotty) appearance. Two coats are necessary to achieve reasonable uniformity of color.

As a general rule, tinted sealers of lighter color tones will not hide as well as darker tones. In some instances, the lighter colors require multiple coats to achieve acceptable results. Darker colors generally always hide well with two coats. A clear coat of the sealer type chosen can be used as a primer (base coat) to provide more uniform absorption by the substrate and greater coverage of the subsequent applied tinted sealer. Solvent based sealers will re-dissolve into each other unlike the water-based material therefore; another general rule is that a dark color can be applied over a light color base, but not vice versa.

**SUBSTRATE PREPARATION:** The first and most important step before applying any sealer to existing plain or decorative concrete, is to clean and remove all contaminants including dirt, dust, grease, oil, paint, stains, efflorescence, curing compounds, etc. Remove oil and grease stains first with a degreaser such as Specco Citrus Solve C-25. Next, paint, coatings, or other stubborn stains can be removed with Specco Lightening SB, or an equivalent industrial strength paint remover, in combination with a pressure washer. Efflorescence, rust stains, and residual dirt or contaminants can be removed last with a multi-purpose cleaner such as Specco Enviro Clean and Etch C-30.

Special care must be taken when using acidic based cleaners. The surface must first be saturated with potable water before the acid is applied to avoid burning the concrete. After the acid has removed the contaminants, it should be flushed with potable water to eliminate any remaining acid residue. Film forming sealers will not adhere as well to slick or very dense surfaces such as steel troweled concrete and the surface must have a surface profile before the material is applied. The acid cleaner will help provide this as well as etch into the cement paste providing more surface area for the sealer to bond to. If a surface profile is not provided, the resulting substrate may not allow the sealer to bond as well and may affect long-term adhesion.

Existing curing and sealing compounds may be left in place provided you are using a solvent based sealer to re-coat and most importantly, the existing sealer does not contain paraffin or wax that may cause a potential bond break. If the existing sealer does contain paraffin or wax, it must be removed by chemical or mechanical means such as sandblasting or shot blasting.

**After removing all contaminants and cleaner residue from the surface, the substrate must be adequately dry before a sealer is applied.** Substrate drying time is affected by temperature and related atmospheric conditions and may require up to 24 hours. Typically, the longer the substrate is allowed to dry before sealing, the less chance of possible blushing (water entrapment) potential. This problem can occur when the sun's heat pulls internal moisture towards the concrete surface. High amounts of retained residual water vapor may have a negative impact on the acrylic sealer film as it passes through, resulting in a spotty, non-uniform appearance. This effect is even more pronounced in tinted sealers, especially the darker tones. With this in mind, if the concrete is freshly poured, it is recommended to wait typically 7-10 days before applying a tinted sealer to the surface to minimize the chance of blushing or related water entrapment problems.

**MIXING & APPLICATION CAUTIONS:** All tinted sealers should be thoroughly mixed before application by use of an air or explosion proof (spark free) paddle mixer. Do not use electric or battery operated drills or paddles when mixing Specco Pebblesheen 350, Pavesheen 350, Stampsheen 350, Mattseal 400, Supersheen 400, or any related Specco solvent based tinted sealer as they are flammable liquids and subject to risk of spark and possible explosion. If no mixing equipment is available, turn container upside down and shake lightly for a few minutes, then open container and stir contents manually with a large paint stick before transferring to sprayer or paint pan. Note that the pigment is the heaviest component of the tinted sealer, and will tend to separate and settle to the bottom of the pail during storage. Failure to mechanically or physically mix the sealer to a uniform consistency will result in the color being completely different than anticipated, or inconsistency and streaking in the final surface tone.

Multiple pail jobs should be boxed (mixed together) to help avoid any variation in color from batch to batch. **Different lot number batches are also susceptible to variations from the pigments used in the formulation, and should be intermixed before applying or of the same number for each particular job.** The tinted sealer should be mixed or stirred intermittently during the application process to ensure proper dispersion if application is taking longer than expected.

Professional painting contractors may choose to spray the tinted sealer if conditions allow however, most applications are made with paint rollers. It is best to contain the tinted sealer in a paint pan and use a metal screen to remove excess material before applying to the surface. Use ½" nap rollers with a "phenolic core, a treatment that makes the roller base impervious to solvent attack. Begin the application in one corner, working backward in small sections at a time. Always stop the job at a clean edge or break line to avoid any noticeable difference from one day's work from another. Take care to not leave roller marks in the surface. Apply tinted sealer when the temperature is ideally between 50° F and 70° F. Do not apply under 40° F or to wet, cold or frost filled concrete which can affect bond and proper film formation. Do not apply to hot surfaces over 80° F, due to possible "out gassing" of solvent, which can leave tiny air bubbles. When applying any of the reduced VOC sealers, application by roller should be made in cool temperatures, and the end user must work quickly to maintain a wet edge. **Do not over-roll or "spider webbing" of sealer film may occur in warm temperatures or direct sunlight.**

**WARNINGS:** Read all technical data and M.S.D.S. (Material Safety Data Sheets) before using. Store all flammable marked products away from heat or open flame. Keep away from children. Please contact Specco Technical Service Department for any additional questions on these products not covered here.

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