

**a/Title : TruStain Application Process**

**b/ Products Required :**

Tru Stain Grainex  
TruStain Tinted Top Coat  
AquaSurTech Accelerator  
Vinyl Kleen  
Vinyl Prep

**c/ Expected Coverage:**

TruStain Grainex: 12-15 full doors (24 - 30 full sides) per quart  
TruStain tinted top coat: 5-7 full doors (10 -14 full sides) per gallon  
(based on a dry film thickness of 2 mils)

**d/ Optimum Environment:**

Enclosed vented paint booth (minimum 12,000cfm, ideal 18,000cfm)  
or, dust free area for spraying  
Proper lighting  
Temperature 60 – 90 degree Fahrenheit  
Humidity range moderate

**e/ Tools Needed:**

Stir stick  
Masking tape  
HVLV gun on filtered compressed air system with a 1.8 -2.0mm spray tip  
Minimum 125 to 40 Micron cone filter strainer or mesh filter  
Sponge (regular or sea sponge)  
Scouring Pad (fluffy plastic kind)  
Squeegee (optional)  
Lint free rags and paper towels  
400 grit wet/dry sandpaper  
Scotch Brite pad (type A – very fine (maroon))  
Distilled water

## **f/ Preparation of Product:**

TruStain Grainex and TruStain Tinted Top Coat should only be stirred and never shaken as shaking will create bubbles. Stir thoroughly for a few minutes until the colour is well blended. Keep lids on containers as much as possible to maintain the product's viscosity and avoid contaminants.

Stir in the correct proportion of Accelerator (5% by volume) to the portion of tinted top coat being used. The Accelerator assists with drying (it is not a hardener!). The Accelerator's "active life" is approximately 30 days.

The TruStain Tinted Top Coat should be filtered prior to spraying.

## **g/ Step 1 - Surface Prep**

Surface preparation is key to the success of any coating application. In the case of textured fiberglass doors, the surface prep described below ensures the removal of dirt and contaminants. In addition to that, it is required to ensure that the surface becomes completely "water wettable" so that the TruStain product will perform for many years. Proper preparation also affects the overall "look" achieved since the proper flow of product into the textured grain is influenced by the surface conditions.

Using our Vinyl Kleen solution from a spray bottle, spray the fiberglass slab substrate generously. Using a maroon Scotch Brite pad, lightly scuff the Vinyl Kleen into the surface with sufficient pressure to generate a light foam.

At that point continue wet sanding the surface lightly with a 400 grit wet/dry sand paper, periodically cleaning the sand paper in a bucket containing a mixture of water and Vinyl Kleen (4 parts water, 1 part Vinyl Kleen).

Then using a lint-free cloth, completely wipe clean and dry the substrate.

Then apply our Vinyl Prep from a spray bottle by saturating a lint-free cloth or spraying it onto the surface. Wipe clean and dry before continuing.

Make sure to change rags, Scotch Brite pads and sand paper regularly. Mask product if necessary with standard masking tape, or painters tape. If possible mount doors in a rotating door rack or otherwise on a solid horizontal surface.

Testing surface preparation can be achieved by observing the surface when some (preferably distilled) water is applied to it. Wet an area of the door (around 1square foot). Displace the water with your hand so that it forms one continuous sheet or pool. If the pool stays together (in other words, if voids don't begin to form in the pool) the surface is considered properly prepared. Alternatively, using a dyne pen (60 dyne) will also work. In this case draw the marker across a section of the door, and observe any separation of the ink. Even small amounts of separation indicate insufficient prep. (Ensure that you remove the ink).  
(Refer to the "WETTABILITY TEST" file on our website for further guidance)

We recommend testing the surface prep on a regular basis.

### **h/ Step 2 – GrainEx ( grain filler)**

GrainEx should be applied to the surface of the door using a dampened sponge (regular or (preferably) sea sponge). Dip the sponge into the container of GrainEx and immediately spread the GrainEx over the desired work surface of the door (this is normally the entire door). Alternatively, drizzle GrainEx on the door and spread with a sponge from there.

It is preferable to work in the direction of the grain rather than across or in a circular motion. Work as quickly and efficiently as possible keeping the sponge wet and with enough GrainEx in it that it is not drying while working it into the grained surfaces. The critical objective is to ensure that all grained surface areas of the door are filled with GrainEx thoroughly. Any unfilled grain will result in a noticeable and undesirable translucent grain.

At this stage, run the scouring pad over the surface using light circular motions. The objective is to work the GrainEx deep into the grains while not

removing it at the same time. Alternatively, a small squeegee can be used to force the GrainEx into the grains.

After the grains of the work surface are "filled", use a dampened lint free cloth (or paper towel) to remove the excess GrainEx. If necessary or desired, any surface can be "rewetted" by using distilled water, and excess GrainEx can be removed by lightly using a paper towel. The open time should be more than sufficient to achieve the desired effect.

GrainEx dries quickly and the application of the TruStain Tinted Top Coat can be done a few minutes after and should be done no later than two hours after. Waiting too long can cause the bond between the GrainEx and the Tinted Top Coat to be compromised.

### **i/ Step 3 – Spraying the TruStain Tinted Top Coat**

An HVLP gun with a nozzle between 1.8 – 2.0 mm is mandatory. Proper ventilation and an organic respiratory mask is highly recommended- this cuts down on any over spray being inhaled by the painter, as well the extraction of overspray minimizes "dry fume" which in turn generates a smoother finish.

Proper lighting is important for good coverage (no shadowing). An air supply free of moisture and oil is required. The immediate appearance of fish eyes after coating is an indication of contaminated air.

TruStain Tinted Top Coat should be filtered through a cone filter strainer or mesh filter before pouring the coating into the spray equipment. A minimum mesh size of 125 Microns to 40 Microns is recommended.

Product may be sprayed horizontally or vertically (Recommendation: if a dust free environment is not possible then spray product vertically.)

The spraying should be done at room temperature; spraying below 60 F is not recommended as adhesion problems could result.

The actual gun settings may vary depending on the gun being used. The best approach to ensuring optimum gun settings is to spray onto a piece of cardboard and observe the spray pattern. Ideally there are no coating spots at the edges of the pattern which are larger than the tip of a very sharp

pencil; the coating should simply fade away gradually. Any notable “dots” indicates a problem, and you should not attempt to spray. If the spray pattern is not symmetric, the nozzle may need to be cleaned. The ideal gun fan length setting would be around 5” at the desired spray distance.

Spraying with TruStain Tinted Top Coat should be done in very light and wide even coats with a pressure at the tip ideally around 15PSI. (Note: this may require the wall pressure to be set up to 55 PSI.)

It is important to note that spraying coats too heavily at one time, or not allowing for sufficient time for the TruStain Tinted Top Coat to flash off in between coats, may result in a white / translucent edge, which will attract the eye and consequently diminish the “grain pop’. The first coat MUST be a very light fume or tack coat. This will ensure that subsequent coats do not “pull” from the edges of the grain and create a clear, “halo” like effect.

The best way to maximum “grain pop” through Tinted Top Coat application is to allow thin coats of evenly applied Top Coat to flash off before further coats are applied, until desired colour and darkness are achieved.

Depending on the conditions this will normally be 2-3 minutes per coat. Thin coats will also ensure there will be no sagging, or runs developing on the surface.

The door is darkened by adding very thin wet coats until the desired shade is achieved. Ensure the application is done wet as dry fume will not adhere to the surface which can cause failure. While applying these thin coats, pay attention to the depth of colour as the door will continue to darken as it dries.

The required goal is to apply a minimum of 4 mils of coating (it will dry to 2 mils). This will be achieved if the surface is covered with coating to the point where the surface has been wetted, i.e. observing the surface from an angle under a light source, it should look evenly wet with no dry patches and no runs. Normally 3-4 coats are sufficient to achieve a good build.

#### **j/ Drying/Curing:**

After Tinted Top Coat application, keep the door in a clean dust free environment and allow to air dry. Since the TruStain products are entirely water based, air movement is critical to achieve curing; fans work well.

Infra-red drying may be used only to dry the Tinted Top Coat and specifically not the GrainEx. A resting period after spraying of a few minutes is recommended to allow any air bubbles to dissipate from the coating.

The finished doors cannot be stacked together as they require lots of airflow for drying and curing.

Normally 48 hours of air curing will build sufficient mechanical properties to ship the door. However, depending on packaging this time may be compressed. A full week is required to build complete moisture and chemical resistance.

### **k/ Clean-Up & storage:**

Clean all tools and sponges with water and dispose of soiled rags according to local laws and regulations. TruStain products are not flammable.

Rinse the gun thoroughly with cold water. It is best to circulate clean water through it for a few minutes. Pressurize the gun and spray water through it until the outgoing stream is clear. On a weekly basis, be sure to take the gun apart and do nozzle maintenance.

AquaSurTech coating products should not be stored at temperatures below 55 F or above 90F. The shelf life is 1 to 2 years and must be stored in a controlled environment with occasional stirring.

### **l/ QC :**

Colour verification prior to application use is highly recommended to ensure no mistake is made with the color selection or labeling.

A “standard” sample should be used in the application area. This can ensure a specific look after both grain filling and spray phases.

A wet film thickness gauge is suggested to check proper build.

A cross hatch test should be performed during the initial phases to validate the prep process on the specific door skin.

It is wise to verify prepping whenever a new batch of product is introduced, as manufacturer changes can occur.