

Screen Goo Systems

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Tuesday, 01 February 2011 00:00



Introduction

Screen Goo is a specially formulated line of acrylic paint products designed specifically for the video projection industry. It allows anyone to transform any smooth paintable surface into a high performance projection screen. Screen Goo paint products are ideal for home theater, commercial, educational or industrial front or rear (2D or 3D) projection applications. It's inexpensive and costs a fraction of what a fixed mounted screen can cost. It can be painted into any size/shape screen and most applications can be done by users without any special tools or skills, such as *me*.

Though I had seen Screen Goo at CEDIA before, I was particularly impressed this year by their demo. They had a painted screen with the upper right corner untreated. The difference in the treated verses the untreated area was remarkable.



After seeing many other screen companies at the convention, I was somewhat dismayed by their prices. Some custom screens are in the thousands of dollars! The cost of projectors has certainly come down, but that is not the case for some of the screens. Screen Goo's high contrast kit came in at under \$260. Of course, cost is moot if the product can't deliver a quality picture. Thus, I became interested in putting the product to the test. Goo Systems offers ten Screen Goo coating products. Front projection users can now choose from a wide variety of different coating combinations for ultimate performance with any projector in any setting. Goo Systems has engineered a rear projection screen coating as well. Since I do not personally own a projector system, I needed a *volunteer*. In this review, I will be applying Screen Goo in a church auditorium.

Preparation and Application

Before launching into this project, I went to the Screen Goo website and carefully read the detailed instructions that they posted on the proper technique that is needed to provide optimal application. For those of you that do not like to read, a comprehensive video is also provided so you can watch, step by step, and actual application process. There is a *correct* way...and a *wrong* way to apply Screen Goo, so following the application method is important for good results. If you have questions before starting this project, the folks at Screen Goo Systems have a hot-line to call and are quite responsive with e-mail as well. After a quick tutorial (I both read *and* watched the video), felt ready to begin my project.

Eliot Baptist Church (ME) has a congregation of about 600+ people and splits their services into two sessions on any given Sunday. They have a “praise team” made up of singers and band members that lead the congregation in music that is projected on a screen in the front of the auditorium. This allows the congregation to follow along with the words of the music, but leaves the singers on stage facing the back of the auditorium and holding sheet music. Recently, a new projector was installed that beamed the same front firing image onto the back wall for the singers to follow. Unfortunately, without a screen, the image looked washed out on the back wall which was painted in a matte white finish.



The auditorium was moderately well lit, not only with interior lighting, but with outside light coming in through windows that lined the length of the auditorium. Having seen what Screen Goo could do at CEDIA, I knew what needed to be done. After discussing the project with the “powers that be” at the church, I was given the green light to proceed with this project.

Screen Goo Systems sent me a 1000ml high contrast kit which was more than enough for this project. 1000ml will paint a surface of roughly 25 sq. feet. Goo provides a calculator on their website that allows you to carefully select the right amount of Goo for the job and the right amount of contrast you’ll need for your lighting conditions. The kit contained everything I would need for my project with the exception of a ladder and roller brush extension handle. Included in the kit were one paint pan, 2 rollers, painters tape, 1 can of base, 1 can of finish sealer, 1 small foam brush for painting the frame, 1 can of black trim paint, and 1 roll of black velvet tape for the outside edge should you choose not to paint an outside trim.



To determine my screen size, I simply turned on the Sanyo projector and let it display its blue screen. It provided a 4:3 image that was roughly 8 X 6 feet in dimension. While the blue screen was being thrown, I got out my ladder and applied the tape along the outside of the image. The great thing about Goo is that you can completely customize the screen you want, whether 4:3, 16:9 or a custom curve: you decide what you would like.

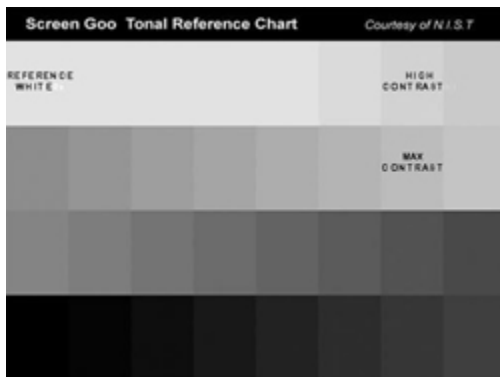


I know of at least one custom job where an architect painted his entire wall with Goo so that when the projector was off, you could not see the screen area on the wall. Believe me; you get a lot of versatility with this product. Once my screen area had been taped off, I was ready for the application. The first layer I applied was the high contrast reflective coat. The one thing I wished was that the paint cans were more clearly marked as to its contents.



The first coat was called the reflective coat, which confused me for a minute into thinking it was the final coat. Perhaps can #1 and can #2 would have made the choice even easier to get right. This coat had a medium, dark grey appearance to it, which seemed somewhat

counter-intuitive at first. When you order this product, be sure to check their website and pick the right Goo for the lighting conditions in the room you plan on using your projector. They provide a contrast chart which allows you to see the amount of contrast (grey) that will eventually end up on your wall.



The brighter the room, the more contrast is needed. When applying the reflective coat, you need to work quickly and methodically. Starting from the left hand side, I applied my first strokes from top to bottom. Goo recommends that you apply two columns and that the rollers “free” end be applied to the left side to avoid leaving streaks caused by too much pressure being applied to one side of the stroke. This allows the columns to be feathered together and have an even amount of reflective base applied. When the first two columns are complete, move onto the next two and so forth. Once the reflective layer is applied, it is recommended that you do not go over it again as this will cause an uneven finish. Because the paint is water based, it will begin to dry quickly (within a few minutes). You will notice that the appearance of the area you just painted looks a bit streaky.



This is normal. As the paint dries, the streaks will diminish over time. Resist the urge to do any touching up as this will give you an uneven reflective base coat.





To expedite the drying process, I used a portable heater/fan. This provided me with some time savings as the drying process for the base coat only took about one hour. The finish coat was applied in the same manner. Though you can sand the reflective coat if needed, it is imperative the finish coat be applied and left untouched. Messing with it once it starts to dry can cause an irregular reflective surface that will degrade the screen's performance. The finish coat is also water based and as it dries over time it clarifies and bonds to the reflective base coat. This process can take a few weeks after application is complete, but the screen, for all intensive purposes is ready for immediate use. The final finish coat leaves a slightly textured appearance which aids in the reflective process. (If you spray Goo onto the wall, the appearance has a smoother appearance, but does not degrade the performance of the screen). Because two roller brushes were provided, I did not have to waste time cleaning it and waiting for it to dry. I simply used the second roller on the finish coat. The whole application process from reflective base to finish took me about 2 and a half hours with drying time included.

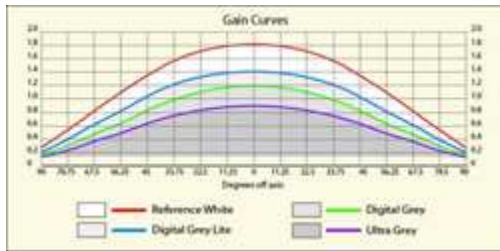
Once I was satisfied that the finish coat had time to dry and set up, I removed the painters tape on the outer edges. Since this screen was on the back wall of the auditorium, I chose not to draw additional attention to it by applying a black border. However, in a home theater environment you have the two choices with framing your new screen. Goo provides a small can of black paint that is specially formulated to absorb ambient light.



You can tape the outer edge of your screen and apply it directly, or you can go a bit fancier with a wood frame that you can then paint. Also provided in the kit is a roll of black velvet tape that can be used to frame the screen. This is a nice detail and I

appreciate the fact that you get to choose the type of application that you want.

I tried to provide you with some pictures of the application process and some detailed shots of the reflective surface. Goo provided excellent gain with minimal hot-spotting. The screen image looked good from various angles throughout the auditorium and especially good from the front stage, which is approximately 50 feet from the back wall.



This really was a simple process and I think it provided outstanding results. I do not consider myself to be technically savvy, but this was not a demanding, labor intensive job. Within a few hours, the bare back wall was transformed into a screen that provided a picture that looked wonderful. The high contrast Goo provided a reflected image that had brilliant whites and deep blacks. Colored images had real “pop”.



Over the course of a few days, the grey lightened up a bit and the streaky appearance faded. The real compliments came from several people in the congregation that told me that the screen in the rear of the auditorium looked *much better* than the one in the front!



My apprehension was that this project might provide a negative or mixed response from others. After all, its not like this was *my* living room and no one would know if it did not come out right except me.

Conclusion

With the continued drop in prices for front projectors, people can still be dissuaded from buying one due to the high prices of a good quality screen. Though Screen Goo Systems may not be right for everyone, it does provide an inexpensive, flexible, high contrast alternative to a traditional fixed screen. If you have a bare wall, you can have a home theater sized screen in just a few hours of time. There was enough Goo left over from my project to do another screen of comparable size. Use your imagination and make a screen as large as your projector can throw. Put your money into the *projector* and not into the screen. If you are considering a new front projector for 2011, you might want to consider Screen Goo Systems. I think you'd be pleased with the results.