

POWDER COATING



THE FINISH THAT YOU APPLY to your tube chassis is often determined by geographical location. West coast desert racers will often leave their chassis in bare steel, choosing to coat the chassis with light weight oil, like WD-40, after each race. This keeps any surface rust from forming, and also gives them time to inspect the chassis before or after a race. The desert is probably the only place you can do this; the arid dry weather will allow bare steel to sit for long periods of time without rusting. In the Northwest, and up into western Canada, a simple “spray bomb” does the trick, and is available in a variety of colors. Wheeling in these areas is slippery, wet, and you spend a lot of your time rubbing trees, so a simple paint job that can be touched up is ideal.

When it comes to putting a custom color onto a chassis, a process that was once limited to high end motorcycles is Powder Coating. This process has changed a lot in the last five years, with new powders and technology, allowing multiple layers of powder to be applied over a base material. Similar to airbrushing in appearance, this layering of graphics under semi-transparent powder gives a truly unique and custom finish.



StreetWerkz is a premier powder coating company with the ability to provide filler work, high temp seam sealers, and block sanding that will aid in coating almost any part, from a chassis to motorcycle gas tank, and even a car fender. This show quality finish powder coating, is what sets StreetWrekz apart from many other coating companies.



I rolled into Columbus with my chassis stripped down, and completely finish welded from front to back. It took 24 hours of fitting, grinding, and welding to prep this complete four seat chassis.



Before I even made the journey to Ohio, StreetWerkz had sent me a pile of color samples to choose from. I told them I wanted a blue that had metal flake, and something cool that would set this buggy apart. Joshua Robinson, the owner of StreetWerkz came up with a cool option of using candy blue, with “buried” logos and fonts along the tubes, and on the boatsides of the buggy to make this a custom finish.



Streetwerkz uses Powder Buy the Pound as their main source for powder coating powders. Powder buy the pound manufactures and sells custom powder coating with no minimum quantities required for purchase. They are also a direct source for powder coating guns, booths, ovens, chemicals, etc, and also have an online “how to” forum, so anyone can learn how to powder coat in their home shop or garage.



Josh and I spent a good hour or so talking about the plan for the coating on the chassis. Determining what sections would receive custom masking, and what sections would just get a color coat. This attention to detail is what gives Streetwerkz their reputation as a high end powder coater.



With the design laid out, and the masking locations planned, the first step was to degrease the entire chassis. Just like a high end paint job, the prep is one of the most important parts of this process. My good friend Kevin Tetz, a pretty hot shot painter in his own right, often compares paint prep to eating liver, in order to get dessert.

The chassis was then put into a modified shipping container to be media blasted. This step is similar to sanding a surface for paint. It gives the metal some "tooth", so the powder has texture to assist in adhesion to the metal tubes.



With the chassis secured to the rack, it was ready for the powder to be applied. The location of the grounding wires is key; ensuring the electrically charged powder becomes attached by providing the current flow of the grounding circuit to promote the powder's adhesion to the chassis.



A primer coat was then applied to the chassis to act as a base for the first color coat. This evens out the color of the base and ensures that any difference in base material color does not transfer into the top coat.



The powder was applied to the chassis in a large spray booth; sprayed from the gun with a positive static charge on the powder. The powder is attracted to the chassis because of the attraction between the positively charged powder and the negatively grounded chassis. A silver base was the first layer of colored powder, and the start of the candy blue finish.



Masking was used to create a custom design on this buggy, different than any other buggy you might find on the trail. By using a temperature safe masking coating that is cut by a local sign shop, StreetWerkz can take any design you can think of, such as your shop name, custom designs or images, and apply it to the buggy.



The second coat of "silver" was applied then the chassis is put into the oven at 400 degrees for 10-15 minutes, and the powder liquefies. The melting powder creates a "shell" around the metal it has been sprayed onto, making it stronger than a typical painted finish.



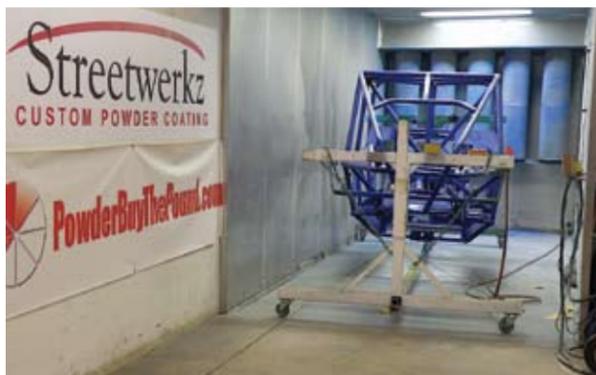
Once out of the oven, the chassis is checked to ensure that the base color has sealed all the raw metal. The base silver is allowed to cool, and the masking is removed to create the “ghosted” image. This is where all the time spent laying out over 250 linear feet of custom graphics really starts to pay off.



A candy color originates from the look of a candied apple. The thick caramel coating that covered the apple was transparent, and gave the apple a deep, reddish look. Painters began experimenting with candy paint jobs in the ‘50s, putting light transparent coats of color over silver and gold flake paint jobs. This chassis will receive three coats of candy blue.



After each coat of candy blue, the chassis was baked in the oven until the chassis reached 400 degrees. Each coat of the semi transparent blue made the final candy coat darker, and when the desired color tint was reached, the chassis was ready for clear coat.



Once coated with a single layer of clear coat, the chassis was kept on the rotisserie to be block sanded for the final coats of clear. Clear coating the candy blue will not only protect the base coat powder, but it also has a subtle amount of metal flake in it.



Block sanding the chassis “leveled” out the final coats of clear. This is essential on a project that has multiple layers, and has the “ghosted” images buried under multiple layers of powder.



Once the clear coat dried, the light bar was put in the sun to see the final results of over 70 hours worth of cleaning, prepping, masking, and finally coating.

STREETWERKZ

STREETWERKZ CUSTOM POWDER COATING started as a custom rod shop, where owner Josh Roberts began building street rods and custom cars back in 2000. In mid-2004, their outside powder coater was not available for a project and Streetwerkz Custom Powder Coating was born.

Josh started by separating themselves from standard powder coaters by getting a booth big enough to do a vehicle frame. In just under a year, their days were no longer filled with building hot rods; they were prepping, and applying custom powder coating finishes to everything from chopper frames, to car parts, engine accessories and frames.

With a focus on doing everything “in house” instead of competing against other production powder coaters, Streetwerkz focuses on 100% custom powder coating. Using multiple layer designs to obtain candy colors and hidden graphics under multiple coats of powder allows the end product to be a truly custom job.

Before their factory trained technicians start the process of applying the custom powder, Streetwerkz spends time with each customer to ensure that the finished product will be exactly what they envision. After spending the day with Josh and the crew from Streetwerkz, I knew that when it comes to custom powder coating, these guys are some of the best in the business.



There is no question that a custom powder coating job like this makes a project unique. However, the new trend in crawlers is high end components and finishes; a custom powder coating job from Streetwerkz not only lasts longer than a custom paint job, it also looks twice as cool.

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