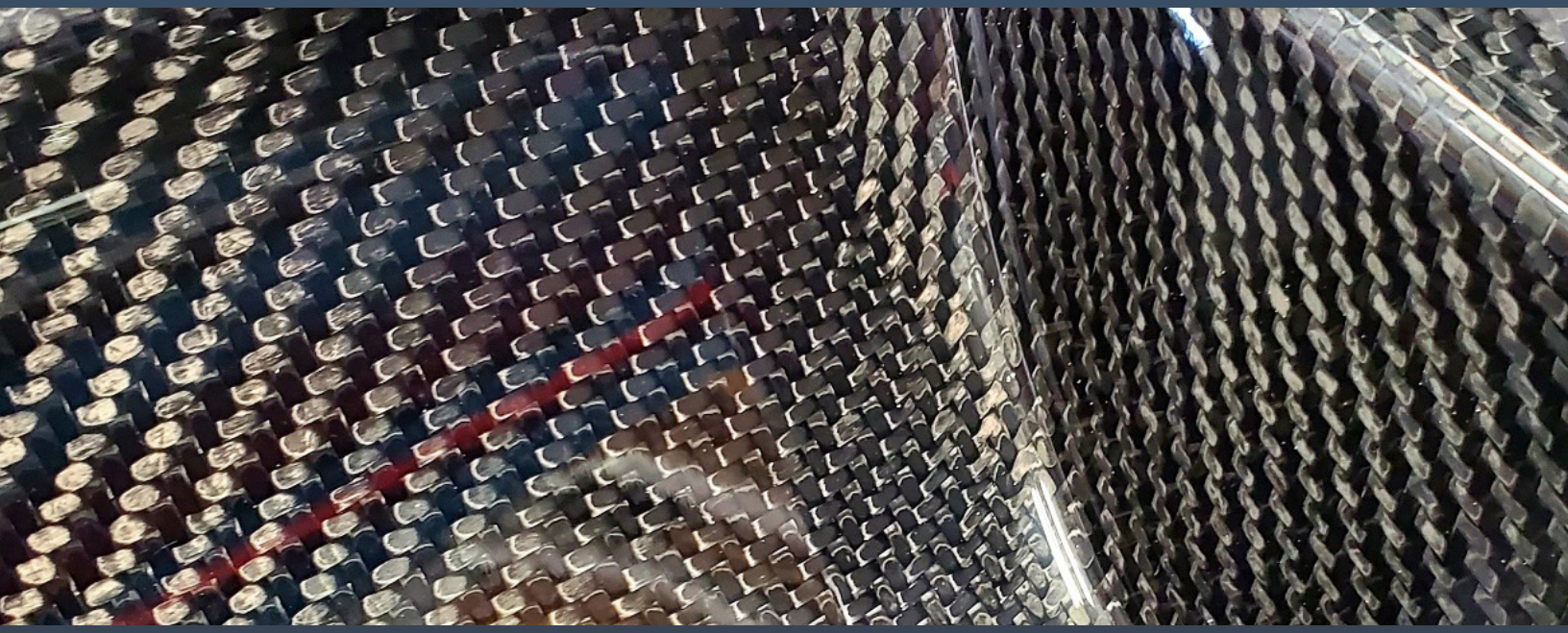
COMPOSITE ENVISIONS KNOWLEDGE HUB
PRACTICAL AND INSIGHTFUL COMPOSITES INFORMATION



PREPPING YOUR PARTS FOR CLEAR COAT

COMPOSITE ENVISIONS

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INTRODUCTION

The clear coat application is what stands between a dull carbon finish and a shiny, clear coated work of art that showcases why carbon fiber was used in the first place. Clear coating is not all for looks though. The clear coat is responsible for protecting the underlying composite. Carbon Fibers are not naturally protected in the raw state. Sunlight will degrade both resin and the fibers. As carbon fibers are exposed to sunlight, they will turn a brownish color and degrade in only a short period of time. UV stabilizing clear coats are a must for achieving the most for what carbon fiber parts are made for.

CHECKING FOR EXPOSED FIBERS

There are a few things to check on the composite part's surface that will need to be checked before proceeding to the prep application of clear coating. Be sure that the part is completely wet out with resin on the side that is to be clear coated. Exposed fibers of the fabric will not take the clear coat well, resulting in pitting and/or pin holes within each layer.

If there are exposed fiber areas or areas with fabric print through, for these areas, lightly sand with 200 grit sandpaper until the surface is smooth, using caution to not go into the carbon fibers. Clean sanding residue with Isopropyl Alcohol and reapply resin to these areas. Once a uniform surface has been achieved, the real prep for clear coat can begin.

CLEANING & SANDING

Once the part is free of exposed fibers, clean the part surface with a lint free cloth soaked with soap and water. For good measure, repeat the process using another lint free cloth soaked in Isopropyl Alcohol. It is important to remove all residue that may be on the part from the mold release or any chemicals that may have encountered the composite part' surface from handling.

Next, remove all surface imperfections by wet sanding the composite weave. This will ensure any scratches or slight handling mishaps from affecting the clear coat application. Start by using #220 grit wet sandpaper, once smooth, move to #400 grit and finish with #600 grit. Wipe once again with IPA with ultra-fine scotch brite pad or 600 grit sandpaper.

TRIM LINE PREP

Once sanding is complete, the trim lines should be painted black. (The exposed fibers along the trim lines are not going to take the clear coat) Mask over the part using necessary means using painter's or masking tape. Paint the trim lines and allow the paint to dry.

Once black paint is dry dry, unmask the part. Clean the part once again using a lint free cloth

soaked with soapy water.

APPLYING THE CLEAR COATING

Apply the clear coat per the manufacturer's instruction. It is advised to use a high-quality UV stabilizing clear coat. As the saying goes, "you get what you pay for" remains true, especially in composites.

When starting the first clear coat layer, look for any "fish-eyeing" or pin holes in the clear coat. If these are evident, immediately remove the clear coat layer using a lint free cloth soaked in acetone. Clean the surface and reapply the clear coat.

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