

How To Reduce Dust While Painting

Important Note:

The fact that we are including this article in our catalog should not be construed to mean that we recommend that amateurs attempt to paint their own cars. We don't. Painting is a difficult skill that takes years to perfect. However, even very experienced painters can be stymied when it comes to painting fiberglass. So, if you are an experienced painter, you may benefit by the following advice. If you are not, you may want to pass this article along to your painter.

We Mean It

If any of the advice we give in this article is contrary to the paint manufacturer's recommendations, FOLLOW THE PAINT MANUFACTURER'S RECOMMENDATIONS.

Static Electricity and Dust

Fiberglass is more difficult to keep dust free than metal when you are painting, because it has a tendency to build up static electricity, which attracts dust. Rubbing the surface with a tack cloth to remove this dust only generates more static electricity. It's just like rubbing a balloon on your hair. The extra static electricity attracts even more dust. So what can you do? Ideally, you would either eliminate the dust in the environment or you would eliminate the static electricity. Neither of these is 100% effective, however, so you have to do a combination of the two.

Eliminate Dust

Eliminating as much dust as possible is the first step. Scrub down your room. Make sure that it is isolated from dusty areas. You may even want to filter incoming air. It sounds easy, right?

Reduce Static Charge

Since no matter how hard you try, you are never going to achieve a totally dust-free environment, you need to take the next step, which is reducing the amount of static charge generated. Wash the area to be painted with a WET rag, as this doesn't generate a charge. Use the dry tack rag as little as possible. If more dust settles than you just wiped off, STOP!

Even Out Charge

Generating less static electricity helps, but doesn't solve the problem because much of the static charge generated in painting is unavoidable. Spraying paint out of a gun generates static electricity because of the friction against the gun and against the air. So you have to even out the static charges in the room.

Ground to Compressor

The only way to even out the static charges is by grounding all possible sources of static electricity-- in this case, the gun, the painter, and the item being painted. To do this, you first have to locate an adequate grounding location. The easiest is probably your compressor, since it is grounded through your electrical system. (If your compressor has plastic pipes, this won't work unless you run your ground back to where it's metal).

Ground the Gun

To ground the gun, run a stainless steel wire from the gun itself all along the length of the hose, and attach it the compressor, making sure that it is contacting metal at both ends. You can run the wire along the outside of the hose, or for a more difficult but more permanent installation, run the wire inside the hose. If you use a light-gauge wire, it won't interrupt the air flow, and running

it inside the hose will protect it from wear and tear. The difficulty is getting the wire in there, because it just bends when you push it. So you have to pull it. The best way we've found to do this is to get a piece of cloth small enough to fit in the end of your hose and attach it to a long string. Blow the cloth through the hose, and pull it out the end. Attach the wire to the string and pull it on through. Make sure that the ends of the wire contact the metal connectors at the ends of the hose. If your compressor has plastic pipes, you need to continue the ground wire to the metal body of the compressor.

Ground Yourself

Now ground yourself--the painter. If you didn't have to wear rubber gloves to protect yourself from hazardous solvents in the paint, you would automatically be grounded by holding onto the grounded gun. But since you should ALWAYS wear rubber gloves while painting, you need to run a grounding wire from your bare wrists to the grounded gun. (Electronics stores sell a bracelet that works well for this. It's designed to ground computer operators to their computers.)

Ground The Item

Now all that's left is grounding the fiberglass item to be painted. Jumper cables are handy for this, but a stainless steel wire will work, too. Just attach one end of the cable or wire to your grounding location and the other end to the back or underside of the item to be painted. Be sure to attach it directly to the fiberglass or to metal that is touching the fiberglass at some point. Since fiberglass is a poor conductor, grounding one point does not necessarily ground the whole item. If it is a large item, such as a body, you want to be sure it is grounded at several points. This is no problem with our bodies, because the steel reinforcement contacts the fiberglass in numerous locations. Just attach your ground anywhere on the reinforcement. If a body is bolted to a frame it has the same effect-- the metal bolts contact the body at several points, so all you have to do is ground the frame.

Wire Management

Once you ground everything possible, you will greatly reduce the amount of dust attracted to the fiberglass. However, you may find that you are tripping over wires right and left. There are a couple of things you can do to avoid this. Instead of running the ground wire from the fiberglass directly to the ground location, it helps to put a large, flat metal plate of some sort on the floor. You can then run a ground wire from the metal plate to the ground location, and from the fiberglass to the metal plate. This will ground the item just as well, and you can walk on the plate instead of tripping over the wire. Also, if you haven't installed the grounding wire inside your hose, make sure it is firmly taped or otherwise attached along the whole length of the hose. (Or you can just attach this wire to the grounded plate, if your hose is long.)

While nothing we know of will completely solve the dust problem, these steps will certainly help. Be sure to start by eliminating as much dust as possible in your paint room, and by generating as little static electricity as possible. Then even out the static charges by grounding yourself, your gun, and the item to be painted.