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Window film applications offer a new view on vehicle looks and passenger comfort.

As more restylers diversify and expand their offerings to cast a wider net to capture additional, often new, business, window film applications have brought additional revenue and, therefore, additional stability to the aftermarket accessories world. With new-car dealers needing every selling tool at their disposal – especially as the new-car season begins – the time for restylers to have more to offer is vital to both them and their potential clients. It's a win-win situation. And don't forget the used-car market. As many drivers make the switch to more fuel-efficient vehicles and trade in their larger SUVs or full-size trucks, those trade-ins have a stronger chance for resale with such additions as window film treatments.

With window tinting, for example, it's become more of an added value to drivers because it offers positive effects beyond reduced sun glare, such as keeping the cabin cooler in the summer and slowing down the sun's effects on the dash, rear deck and other interior items.

Talented application technicians are important to the success of any part of a business. So, receiving the proper training and understanding of the window film application process is crucial to keeping customers, especially those higher-volume ones, returning to your business because your application technicians are No. 1.

While there are too many parts of the application process to cover in a single feature article, we have asked a couple of specialists to focus on just a single area or two that for experienced techs might offer some new insight, for those more new to the process some tips that otherwise might take time to discover on their own, and for those contemplating becoming window film specialists an opportunity to see what's involved.

One caveat: Be sure you understand the regulations in your state or municipality regarding window tints; some are more strict than others.



Window Film Applications: Roll-up Windows

By Robert Doan

Robert Doan

is president of Windowtinting.com Inc., San Diego, and he instructs on the proper application of window films for vehicles and residential/commercial glass, as well as a business management Before you start with any tinting installation, on any vehicle, always check with your state laws for the maximum V.L.T (Visual Light Transmitted) allowed. You can check our website for that information at http://www.windowtinting.com/state_rules_and_laws.htm.

Also, be sure to choose the right grade (or type) of film with your customer. Most people like the overall benefits of a hybrid (a.k.a. high-performance films) because of its high heat reduction and low reflectivity. It's mainly a combined mixture of a dyed film (low reflective) and a metalized film (heat reduction) ... making it the "best of both worlds."

By the numbers

There are always four edges to any window, which will allow you to install the "process" on any vehicle: top, bottom, and two sides. The "two sides," meaning a tall side and the short side of a window's frame. In addition to this,

there are only two frame types to consider: the *free* edge and the *frame* edge. It's that simple.

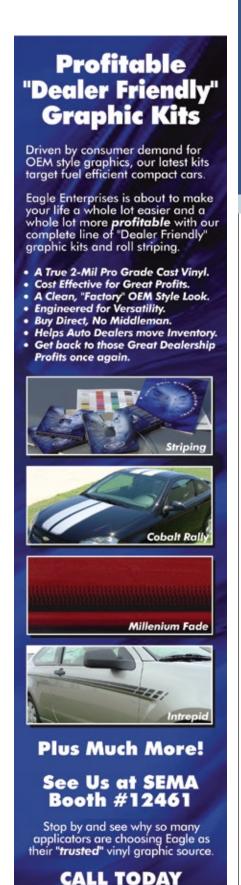
There are applications for each window that, while on the face, similar, have their own considerations. Here, the focus is on a typical roll-up window.

You must first prepare about four bottles of solution mixture to start out with on your first vehicle installation. At our training facility we recommend a 32-oz. bottle with a high-volume spray head; the solution ratio is 80% tap water, 15% Slip Up and 5% Film On, with approximately 1 tsp. Johnson's Baby Shampoo. All of these products (minus the shampoo) can be purchased at www.44tools.com.

To begin, measure the total length (from top to bottom) and width (from side to side) of the outside of the window to be tinted. While there are a variety of quality window films on the market, for this project, I used Global Window Films — preferably the HP Charcoal Series and the 40-in. x 100-ft. roll; this maximizes most vehicle applications.

Next, cut a bulk pattern of the film from the film box that will overlap each side by at least 1 in.-2 in. — check to see which side the *liner* is on; this is the clear layer protecting the contact adhesive on the film itself that bonds the film to the glass after the application solution is applied. The way to check for the liner and removing it just prior to the installation is to take two pieces

GO TO PAGE 49



Prep work to the inside of the glass is 95% of a proper and clean installation, leaving only 5% of importance to the installation itself. Why? ... Because if you don't have a properly clean glass, it won't matter how great of an installer you are; if it's dirty, you get to start all over again!

Why Window Film Application Works For You

Window tinting is, hands down, the perfect aftermarket feature you can offer to any customer. It not only adds style and privacy to any vehicle and increases its value, but it also protects the interior of the cabin with up to 65% or more of heat reduction and eliminates 99% of the harmful UV rays – a major factor that causes fading. All of this, plus it's extremely affordable with an average price tag to the customer of about \$200-\$300 for the entire vehicle, as well as a lifetime warranty offered with most professional-grade films, which makes this a "must have" to any car lover. As for the money to be made by the installer, on average, it runs about 20% for material; after your labor, the rest is pure profit!

At Windowtinting.com Inc. School of the Trade, in San Diego, I've been in business for more than 22 years, and I think I've seen just about everything there is in window tinting. I can honestly tell you, to this day, I still love it. It's one of those trades that gets under your skin (in a good way) and never lets go.

Along with the obvious reasons above, this sought-out skill will never — did I say "never"? — yes, never go away or have the installer replaced by a machine on a production line. And because the tinting laws for vehicle windows vary from state to state, and will most likely never become universal, the car manufactures cannot cost-effectively produce a vehicle to meet everyone's preferences; therefore, another reason why window tinters always will have a job. But you have to be good at it!

The main thing I can tell you is not to get frustrated. Most students, after learning the techniques, can expect to tint at least 10 vehicles before becoming more comfortable with the process.

As with most skilled trades, it all starts with proper training and installing a superior film product. Watching someone install is only the tip of the iceberg, and purchasing a training video can be a helpful tool in the entire process; but only true hands-on training with an experienced instructor watching over your shoulder like a guardian angel can make you a real window tinter.

Being an artist, which is what a window tinter truly is, means gaining the knowledge of how to cut and install the pattern correctly. Most good, veteran installers will never have the need for a computer-cutting machine, commonly referred to as a "plotter." There are many reasons to support this fact. One is simply because most patterns, due to the compound curvature of windows these days and the need of heat-shrinking, require the installer to perform multiple cuts in order to finalize the pattern prior to installing; therefore, you're going to need to know how to hand cut anyway. In addition to this, the plus side is that once you know the proper techniques of how to hold the blade right (the Olfa "A" model recommended), you will be faster and more efficient than a computer. Bottom line is, save your money on the machine and spend it on what you really need to know: how to be trained as a hands-on window tinter.

In the accompanying how-to article, "Window Film Applications: Roll-up Windows," I offer just an example of what's involved. You must understand it's going to take practice, and the details of the installation always will be understood differently from person to person. The main thing I can tell you, or my students, is not to get frustrated – and for some, you might at first. Most students, after learning the techniques, can expect to tint at least 10 vehicles before becoming more comfortable with the process.

- Robert Doan

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Window Film Applications: Roll-up Windows

of 3M Blue Painter's tape, position one piece on one side and one on the other side, right on a corner of the pattern; pull apart to separate a small section of the liner/film ... Voila! Now it's time to spray a coat of solution that will evenly cover the entire surface on the outside of the window and place the bulk pattern on the outside of the glass with the liner side *always* facing toward you.

The kindest cuts of all

First, be sure to look for two things: the curvature of the door itself and the height of the inside bottom gasket. The concept is that even though you are cutting your pattern on the outside, you ultimately are

making the fit for the inside. Now position the pattern for the bottom framed edge so that the bottom of the pattern should be parallel to the door frame itself and that edge of the pattern should overlap (downward) the very top of the inside gasket by only about a 1/4 in. Once you are satisfied, "tack" the pattern to the glass. This is done so that the pattern will not shift (or slide) on the window's surface while making the remaining two side cuts and the top free-edge cut.

Now, cut the two sides first using the Olfa "A" knife, which I recommend, with *only* stainless steel blades. Carefully lift the bottom of the pattern away from the bottom edge of the window/door frame



Hold back film, while doing bubble lift tuck.



Window Film Applications: Roll-up Windows

Be sure to look for two things: the curvature of the door itself and the height of the inside bottom gasket. The concept is that even though you are cutting your pattern [for the window] on the outside, you are ultimately making the fit for the inside.



Making a free-edge cut

while slightly rolling down the window to expose the top free edge in order to make that final cut. [See "Free-edge cut" above.]

Once that free-edge cut is made, remove the pattern from the window and clean up any corners or rough edges with your knife. Set aside for a bit, as your pattern is now completed.

Prep school

Prep work to the inside of the glass is 95% of a proper and clean installation, leaving only 5% of importance to the installation itself. Why? you ask. Because if you don't have a properly clean glass, it won't matter how great of an installer you are; if it's dirty, you get to start all over again! Of note: There are many methods for prepping the glass and we teach our students the art of handling a squeegee; we prefer the 6-in. Pro Unger type. With the window still rolled down about 2 in., spray a light coat of solution on the glass.

Start by scraping the glass with the stainless steel 1-in. scraper blade to clear away any debris stuck to the glass — be careful not to push too aggressively; always check an inconspicuous area of the glass first. A White Scotch Brite also may be used; however, the razor blade is more effective. On factory tinted "privacy glass" always use the white Scotch-Brite, a k a scrubby pad. Be sure to completely squeegee off

any remaining solution and dry off the top free edge with a lint-free paper towel; then spray another coat of solution in preparation of installing the pattern.

Apply like a pro

Take the completed pattern and place it back on the outside of the roll-up window that you are working on so that the liner is still facing toward you. Position the pattern so that the entire surface is in contact with the glass itself, or the frame and body of the door with all sides free of obstructions. Start to remove the liner from the top and pull it away from the film, stopping parallel about 2 in. from the bottom of the pattern while lightly spraying on a coat of solution. Lift the pattern (with the liner still attached at the bottom) away from the outside of the window/door and carefully place it on the inside of the window, while positioning it just below the top free edge of the glass approximately 1/8 in. so there is a slight gap away from the beveled edge of the glass; this will become what is referred to in the industry as a "micro edge" and is very common. [See "Micro edge install" above.]

Next, using a 5½ Yellow Turbo, squeegee out the solution between the film and the glass, and only those areas that are in contact with the glass surface. Don't disturb the bottom section of the film with

Managing a micro edge install

the liner still intact. Once satisfied, roll the window up all the way.

While lifting the liner away from the glass, with the film still attached, heavily spray down (also called *power wash*) the bottom portion of the glass that was contaminated by the bottom section of the window being in contact with the gasket after you rolled it up. Remove the remaining liner and lightly spray some solution on the film and glass in order to keep the area totally wet — be careful not to touch the bottom door gasket with the exposed film.

This next step is tricky, but if you take your time and focus on your installation, you will never have the need for removing door panels, which is a time-consuming and risky process.

Place the remaining flap (or bottom section) of the film onto the glass surface so that it is above the door gasket and in contact with the glass. This should create a large horizontal bubble which will be used to force that remaining section of the film down (or under) the door gasket. While holding back this section of film, use the push stick to pry back the gasket, and rapidly slide it back and forth along the gasket from one side of the door to the other — you may need to assist the bubble section by lightly pushing down on the top. If done correctly, the film will move itself down the glass and under the gasket, laying flat to the glass surface.



With the push stick between window and gasket, rapidly slide the tool back and forth from one side of the door to the other.

Finishing up the details

Once all the air pockets are laid flat, use a 4-in., white, Teflon card to detail the edge and remove any remaining solution. Any debris or "crease" in the film can be diminished (or disguised) by using a Little Chizler and, if needed, in conjunction with a heat gun on the outside of the glass. This is a major part of the skill and art form of a professional window tinter; but after lots of practice (or the proper training) you may become one, too.

Now with the pattern completed, clean the inside of the newly installed film with a non-ammonia-based glass cleaner; we use a product called Performax Glass Cleaner, which again, along with all the other tools mentioned can be purchased at Performance Tools or its website — www.44tools.com.

A final note: Make sure you tell your customer to *not* roll down his or her windows for at least 48 hours.

COMMENTS OR QUESTIONS ABOUT THIS ARTICLE? E-mail Restyling's editor at reeditor@nbm.com





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