



## FlexiShield Cosmetic Paint Protection Films Installation Manual

Congratulations on choosing FlexiShield Cosmetic Paint Protection Film to enhance your vehicle's appearance and safeguard its original paintwork. This manual will provide you with step-by-step instructions for the proper application of FlexiShield Cosmetic Paint Protection Film. Please read and follow the instructions carefully before beginning the application process.

### TOOLS & SOLUTIONS:

To create a quality finish, performance, & a long-lasting installation of FlexiShield Cosmetic PPF you'll first want to have these chemicals & tools in your facility.

1. 70% & 99% isopropyl alcohol
2. Tack Reducer (e.g. FlexiShield Professional Application Foam Concentrate)
3. Tack Multiplier (such as Orafol Pre-Wrap Surface Cleaner)
4. Microfibre towel & applicators
5. Squeegees with soft felt
6. Sharp blades
7. Heat gun and/or Infrared Lamp
8. Wrap gloves
9. Various tucking tools.

### WORKING ENVIRONMENT:

In terms of installation conditions and storage of FlexiShield Cosmetic PPF, please keep these three critical points in mind:

- Temperature plays a critical role in how well the PPF adheres to the substrate. We recommend a working temperature to be in the range of 22-25 °C (72-80 °F). If the temperature is too low, there is a higher risk of glue lines as the cold makes the film more brittle. If the temperature is too high, the adhesive will activate and bond more aggressively. This will add difficulty when repositioning the PPF on the target surface.
- The environment you work in also matters. We strictly recommend applying film indoors, as this will not only help maintain a consistent temperature, it will also reduce the amount of dust and contaminants that may collect on the surface.
- When it comes to PPF storage, try not to expose the film to heat sources (radiators, heaters) or direct sunlight. Keep humidity as low as possible and always store the film vertically or by its inner core tube.

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When storing PPF after using the product, make sure the material is tightly wound around the core and the end taped to hold this tightness.

### PREPARATION:

Now that you're ready with the right tools and working under the right conditions, it's time for some pre-wrap prep. Here are a few tips for cleaning and prepping the surface you're about to wrap.

1. Decontaminate the surface with a wash and clay to remove any dirt or grime on the surface. We recommend having the car cleaned with car wash soap (avoid using cleaners with waxes). Then proceed to rinse the surface with water. Ensure that the paintwork is completely clean and free from dirt, debris, and wax.
2. Thoroughly dry the surface with a clean, microfiber or drying towel. Pay particular attention to ridges, corners, and seams as these areas are often neglected and may carry the most dirt and grime. To clean hard-to-reach edges, wrap a lint-free towel over a squeegee and proceed to swipe multiple times. Each swipe should be done with a clean portion of the cloth until it shows no dirt on the swiped edge. This process may be time-consuming, but often these edges, especially in vehicle wrapping installations, are where the ends of the film are anchored and may peel off if not properly cleaned.
3. Surfaces with any grease, oil, or wax significantly reduce film adhesion and may form bubbles on neglected areas. To remove these contaminants, we recommend using a 70% isopropyl alcohol. 99% Isopropyl alcohol is best used for spot cleaning and the panels underside as well as edges.
4. Remove all body elements that will facilitate the application of the film, such as door handles, headlights, emblems, bumpers (according to your preferences and skills).
5. Clay whole vehicle to remove contaminants that could not be removed by washing.
6. Optional: Apply a small amount of adhesive promoter to the corners of each panel to ensure long-term holding of the film on these crucial points (not required, but applied according to your preferences).

### APPLICATION:

Apply masking tape to distractions, headlights, and other items to make your job easier.

Try to assess the shape of the element you want to wrap and approach wrapping with a specific idea of how the foil can behave and how the tension on the foil is to be distributed. Remember that Cosmetic PPF is much thicker than classic car wrapping vinyl.

Pour FlexiShield Professional Application Foam onto a good quality microfibre towel or ceramic coating sponge and apply to the surface you want to cover. This will help you avoid adhesive lines and gives you opportunity to lift the film more easily and without any surface problems. Avoid applying foam: 3 cm from the edge, in all recesses, and on sharp geometric edges, as this will reduce tack in these critical points, which could cause lifting of the film over time. [Optional: Add Tack Multiplier/Increase to the edges of the panel, the underside, and any deep recesses using a microfiber applicator].

Before removing the cap-sheet, spray a light mist of water on yourself and the area around the car to avoid dust accumulation (optional).

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Start on the flattest part of the piece you want to wrap, release the liner, trim the backing paper and tack the liner behind the film. For more complex parts we advice to start in deep recesses and work with the tension towards the outside of the element. The maximum level of film stretching recommended is around 10-15%. Beyond this stretch you risk permanently damaging the gloss of the PPF's top-coat

Tension occurs when the film does not sit flush to the panel you are working on because there is an obstacle to overcome first or an excess of material at a given point (e.g. a ridge in an adjacent panel or a door handle making the film sit up). The first step is to relieve tension and to get the film to sit as flush to the panel as possible. Once the film is able to easily stick to the body of the panel you can start applying stretch and moving it to where it must be without tension lines or excess material. Until you take this step you cannot see how the film will sit and gather.

Fingers are the results of not enough stretch. To remove fingers you have to stretch the film at a 90 degree angle of the finger marks. This will relive the fingers. If you do not remove fingers as soon as you see them you will end up trying to remove them at the edge of the panels. This can create stretch marks within the film and will leave a bad final product. You also run the risk of the film "bouncing" back after time, which will result in the customer bringing the vehicle back in. If you predict where the film will gather first and stretch appropriately you prevent fingers from forming and greatly lessen the time it takes to complete a panel.

Using an IR Lamp or heat gun on the adhesive side will ensure a quality finish and maintain full hydrophobic properties of the Cosmetic PPF. Be cautious when heating the colour top side and take your time bringing the film to high temperatures, slowly heating allows the thickness of the film to thermally warm throughout. The film performs at its best when heated at around 65-70°C. Cosmetic PPF holds heat very well so working slowly is often times a much better approach.

Wrap the film over the edge, leaving about 2cm of film all around the part. Before and after the excess film has been cut away, post heat the edges of the film. Keep a close eye on any movement that shows premature edge failure, and address right away. The film has a small amount of shrinkage built into the top layers, which help it wrap downwards when heat is applied, but when finishing an edge it is best to remove any of the shrinkable memory. Lock the film into place with high heat around 90-95°C. **Avoid heating recesses:** Recesses should have more of a cold cure rather than a post-heated one, as otherwise the tension cause by the light shrinkage of the top-coat might cause the film to lift off the recess, creating a bubble.

### VEHICLE DELIVERY AND CHECK UP:

Allow yourself a day after the installation is complete so that you can check the entire car and make sure you are delivering a high quality finish. This will save you time and ensure a satisfied customer who is sure to recommend you to his friends or co-workers.

We recommend that you ask all customers to come back for a 30-day check-up after installation. This gives you a chance to check over all edges and ensure none of them are lifting with time. If they are then the panel was not installed correctly. To fix this you can trim the edges to remove the lifting film or if it is very bad you

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should replace the panel free of charge. It is also a great opportunity to rectify any issues the customer may have spotted or be dwelling on. If you are able to fix any little edges and address any issues, you have fixed their problem before they even noticed it.

### CUSTOMER AFTER-CARE:

Please make sure to share the following instructions with your customer. These can also be found in our Refund / Exchange Policy and Warranty:

#### Within 7 days after installation:

- Do not wash your car.
- Do not use towels to wipe the film, particularly avoid wiping along the edges of the film.
- Do not use high-pressure water sprayers to rinse the film.

#### Within 3 days after installation:

- Do not drive over 50 MPH or 80 km/h.

#### After-care instructions:

It is normal if there is some residual water under the film after installation. Within 15-30 days the water will have evaporated. Parking your car under direct sunlight will help accelerate the drying process.

After installing FlexiShield PPF, avoid using strong acids or alkalis to clean the PP. Failure to do so could reduce gloss over time.

FlexiShield has self-healing and water-repelling properties. However, this does not ensure that the film will not be damaged under extreme conditions. Bird droppings and dead bugs on the film should be washed within 72 hours to avoid any residual penetration into the film.

If you find film edge lifting or water/ air bubbling, contact the installation shop for professional advice. Do not cut or peel the film yourself.

Avoid using low quality, microfibre cloths that could leak colour and stain PPF film.

### QUESTIONS OR CONCERNS:

Please email, including good quality pictures, to [training@reflekttech.com](mailto:training@reflekttech.com)

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