

F-Print C50 Ultimate – Application guide

The following document provides detailed information on how to apply graphics made with F-Print C50 Ultimate laminated with Ri-Lam C30 Ultimate. For specific information on products' properties, please consult the technical data sheet.

REQUIRED TOOLS

To ensure proper graphic application, you will be needing the following tools:

- IPA (isopropyl alcohol) to degrease the surface.
- High quality microfiber towels
- Rinseless Wash
- Nitrile Gloves
- Basic removal set for hardware
- Heat gun
- Infrared thermometer
- Medium hard standard squeegee with a fresh wing tip buffer.
- Multi-cartridge light duty utility knife with 30-degree stainless steel blades.
- Application gloves.
- Magnets
- Tucking Tools
- Cutting Tape
- Masking Tape

SURFACE PREPARATION

The client should wash the vehicle the day before the install. No wax or sealants.

- Remove the hardware then clean the surface and edges with rinseless wash.
- Degrease with 70% IPA with extra focus on edges and recessed areas.
- Pre-inspect the paint after cleaning to look for damage and to assess that the paint is OEM.

APPLICATION METHOD

Generalities:

- Workspace temperature should be between 18-22 °C (65-72 °F).
- The low tack adhesive used will guarantee excellent repositionability and nice slidability on the surface. This means the initial adhesive bond is extremely low even after squeegeeing. Adhesion will increase after 20-30 minutes at room temperature. To speed up this process, heat the graphics to $\pm 40^{\circ}\text{C}$ ($\pm 104^{\circ}\text{F}$) to activate the adhesive and assure an immediate good bond to the surface.
- Overstretching the printed media might generate distortion. Note that this can be fixed by lifting the off the surface, adding heat to trigger the memory effect of the PVC then reinstall.
- When installing multiple panels on one main surface area like the driver or passenger side, overlaps are required. The overlap must be bigger than 2cm (± 1 inch) and needs to be heated at $\pm 40^{\circ}\text{C}$ ($\pm 104^{\circ}\text{F}$) to ensure a proper bond between the two panels.
- Any section where the film as stretched close more than 10% should be post heated at the end of the day...

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Hood Wrap

- Position the panel so that it's centered and secured it in place with magnets when possible. Trim off the excess film on the edges leaving roughly 9cm (3.5" of excess film).
- To apply graphics accurately, set up a hinge of magnets in the middle, remove the liner to the magnets and cut the liner away.
- Lay the film on the surface and squeegee the film next to the liner securely onto the surface.
- Remove the other half of the liner then stretch the film evenly on the surface to create glass. If wrinkles build up don't force the film onto the surface. Only squeegee the area that had wrinkles in firm overlapping strokes.
- For sections that have wrinkles, hold the film off the surface with the free hand then use the Zero Stretch technique from The Wrap Institute to shrink the film to the surface. This will take advantage of the built in tension from the manufacturing process. Once the film is glassed out on the surface squeegee it onto the surface.
- When trimming, add heat around the outside edge to first relax the film. Let it cool back to room temperature then cut away the excess film with a sharp blade. Seal the edge after cutting using an application glove or squeegee.
- Once the car bonnet is wrapped, heat it up at $\pm 40^{\circ}\text{C}$ ($\pm 104^{\circ}\text{F}$) to activate the adhesive and assure a long-term bond.

Driver and Passenger Sides

- The low initial tack of F-Print C50 Ultimate allows installers to comfortably handle large graphic sizes without assistance from a second installer.
- Just like on the hood, anchor the panel on the body with a hinge, first with magnets then with squeegee stroke. Glass the film out first at room temperature. Squeegee this area in place then use the Zero Stretch technique to relax the film onto the remaining surface.
- To finish the edges and tight gaps using a combination of cutting techniques like tempy/solid, tuck and cut and cutting tape.

Bumper wrapping - large convex curves

- Ideally use 2 installers and use the Zero Stretch technique as this will help make wrapping the bumper much easier.
- In most cases, when heated, the film will shrink to the surface with no wrinkles, which greatly facilitates the application. Squeegee once the film glassed out with firm, overlapping strokes.

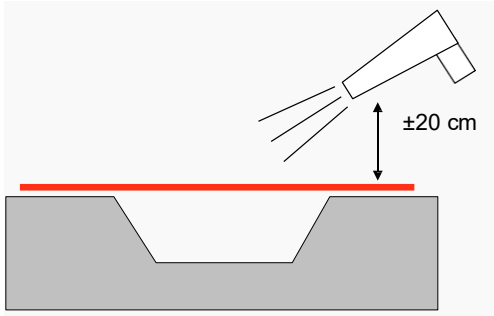
Mirror wrapping - Severe convex curves

- We recommend wrapping the mirror in 2 pieces:
 - First, apply a large piece on the main mirror area, by gently stretching the film after Zero Stretching the film then cut the excess film to the mirror edges.
 - With a second film piece, wrap the back mirror section. The overlap should be 3mm (0.1 Inch).
- Working with 2 pieces will insure no tension at any point of the mirror.
- Reheat to $40-45^{\circ}\text{C}$ ($104-113^{\circ}\text{F}$) all mirror surface to activate the adhesive.

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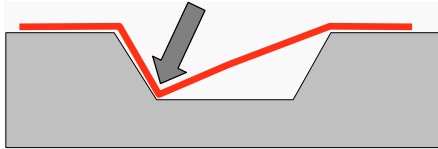
Deep recessed areas

- F-Print C50 Ultimate is very conformable, meaning it can be applied in deep recesses following these 6 installation steps. All are mandatory to achieve a good long-term result.



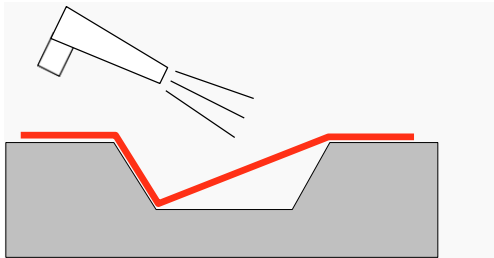
Step 1:

Bridge the film over the deep recessed area and go over the film with slow heat to Zero Stretch it. Wait for it to cool back to room temperature.



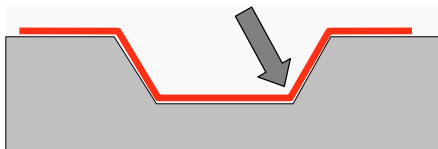
Step 2:

Heat the film 12cm (4.5 Inch) from the deep recessed area then form the film into the recessed area using an application glove.



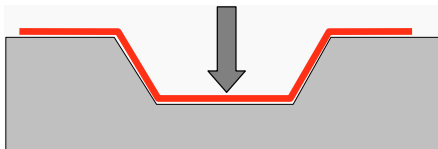
Step 3:

If the deep recessed area has two channels, then repeat the same steps for the other side.



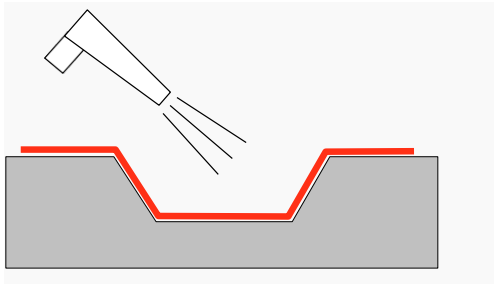
Step 4:

Make sure there are no bubbles in the recessed area.



Step 5:

Once the deep recessed areas have been formed then squeegee the film onto the flat sections.



Step 6:

Post heat the film to 90°C (194 °F).

This step is crucial to release all tension introduced in the film during its conformation. Be sure to use an IR thermometer and a heat gun during these processes.

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- Inspect all edges to ensure the film is fully sealed.
- Apply edge seal tape on the underside areas, such as bumpers and rocker panels.
- Post-heat any critical areas.
- Reinstall the hardware.
- If the external temperature is below 20 °C (68°F), heat the final wrap to 40-45 °C (104-113 °F) to ensure long-term adhesion.

Maintenance and cleaning

- Avoid cleaning the graphics within 48 hours after application.
- We recommend cleaning the graphics at least once per month, to avoid dirt penetrating inside the film structure. Use rinseless wash and aftercare products like Triple S.
- If high-pressure cleaning equipment is used, the pressure must be lower than 80 bars, the distance between the nozzle and the graphics must be higher than 75cm, the water temperature should never exceed 50 °C (122 °F), and the water-jet impact angle must be as perpendicular as possible (never use a tangential water-jet angle that could damage the graphics).
- Avoid solvents or abrasives that may damage the graphics.
- If some aftercare coatings (wax, polish...) needs to be used, compatibility tests with the graphics are recommended on less visible area.

REMOVAL METHOD

To remove F-Print C50 Ultimate S&T, heat the graphics at 50-60 °C (122-140 °F), and peel-off the film at low speed keeping an angle of 60 to 90 °C (140-194 °F) between the car surface and the film.

Any eventual adhesive residue can be removed with IPA.

PRODUCTS

Printable films - codes & names:

- 60210 - F-Print C50 Ultimate White Gloss Easy tack
- 61115 - F-Print C50 Ultimate White Gloss S&T

Lamination films - codes & names:

- 60216 - F-Guard C30 Ultimate Ultra-Clear Gloss Perm SB - UV Print N
- 60212 - F-Guard C30 Ultimate Clear Gloss Perm SB - UV Print
- 60214 - F-Guard C30 Ultimate Clear Matt Perm SB - UV Print