C50 Ultimate – Application guide

The following document provides detailed information on how to apply graphics made with C50 Ultimate laminated with 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.
- Heat gun to heat the material.
- Infrared thermometer to control surface temperature.
- Soft plastic squeegee with protector to avoid damaging the media.
- Cutter with new blades.
- Cotton gloves.
- Lint-free cloth or paper for cleaning.

SURFACE PREPARATION

Even if they look clean, all surfaces should be cleaned and degreased before applying the graphics:
- Wash with soapy water, then rinse with clean water (do not leave any trace of soap on the surface).
- Degrease with IPA with special care on critical parts such as corrugations and panel edges.
- Dry the surface with a lint-free cloth or a paper towel before the IPA has evaporated.

APPLICATION METHOD

Generalities:
- Only dry method application technique must be used.
- Please ensure the car, the graphics and the ambient temperature is above 15°c.
- 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 when pressing the media with a squeegee. Adhesion will increase after 20-30 minutes at room temperature. To speed-up this process, heat the graphics to ±40°c to activate the adhesive and assure an immediate good bond to the surface.
- Overstretching the printed media might generate printing defects that can be easily sorted by heating the film, allowing the graphics to shrink back to its original dimension and printing appearance.
- When covering a surface bigger than the media width, an overlap is required. The overlapping area must be bigger than 2cm and needs to be heated at ±40°C to ensure a proper bond between the two overlapped surfaces.
- During wrapping, considerable tension is put on the material which is essential to release otherwise it may pop-out of the recess later.

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Car bonnet wrapping
- Remove the hardware (badges and emblems, side mirrors, door handles, auxiliary turn signal lights, vent trims, roof molding & railings, …): this will simplify the application.
- Apply masking tape to all parts that do not have to be wrapped.
- Material positioning: to cover a car bonnet, put the graphics in place (with the liner on), and trim all excessive material parts. Make sure to leave enough material on all sides. Trace some positioning marks.
- To apply graphics accurately, set up a hinge by removing the liner in the middle of the media.
- Remove the liner at the hinge and put the graphics on the car bonnet and align it to the preset marks.
- The graphic is then squeegeed at the hinge area with overlapping strokes.
- Remove the liner from one side of the hinge, slightly stretch the graphics to make it as flat as possible on the car bonnet and squeegee it.
- Repeat the operation with the other side of the hinge.
- To apply C50 Ultimate on convex area, heat the vinyl at ±40-45°c.
  The film will slightly shrink and spontaneously adapt to the surface to be wrapped.
  This will considerably help the wrapping process.
- When trimming, start with the bonnet corner by leaving 5mm at the edge that will be applied under the bonnet. Heat the film at ±40°c and wrap the area with the support of gloves and squeegee.
- Once the car bonnet is wrapped, heat it up at ±40°c to activate the adhesive and assure a long-term bond.

Car side wrapping
- The low initial tack of C50 Ultimate allows installers to comfortably handle large graphic sizes without assistance from a second installer.
- As with the car bonnet, heat the graphics at ±40-45°c and gently stretch it to conform it on to convex areas such as fenders. Then, once flat, simply squeegee it.
- To finish areas such as the top of the fenders, cut the opposite side of the fender edge, heat the film and press it with gloves, then squeegee the fender edge.

Bumper wrapping – large convex curves
- Start positioning the graphics on the flat bumper surface.
- Ideally use 2 installers: one to heat the vinyl to ±40-45°c and the second to hold the film on the bumper surface.
- In most cases, when heated, the film will shrink to the surface with no wrinkles, which greatly facilitates the application. Squeegee once the film is in shape.

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, then cut the excess film to the mirror edges.
  - With a second film piece, wrap the back mirror section.
- Working with 2 pieces will assure no tension at any point of the mirror, so no risk of detachments.
- Reheat to ±40-45°c all mirror surface to activate the adhesive.

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**Van door wrapping – Concave curves**
- 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.
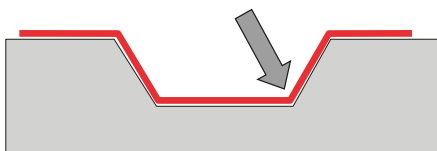
±20 cm
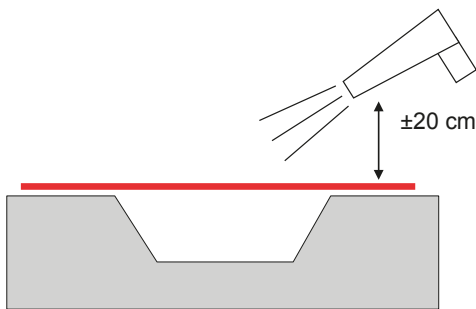
Step 1:
apply C50 Ultimate S&T over the concave area.
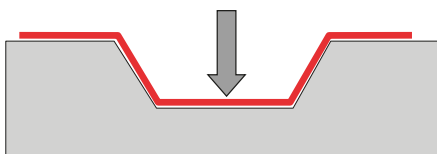Heat the film to ±40-45°c.
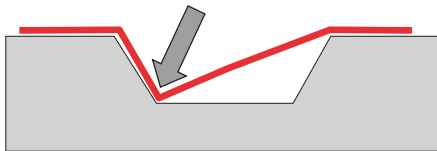
Step 2:
With cotton gloves, press the film inside the corrugation, directly to the corrugation angle.
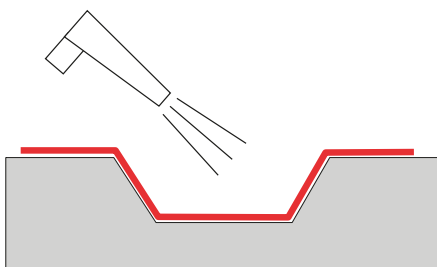Start the application to the deepest corrugated angle.
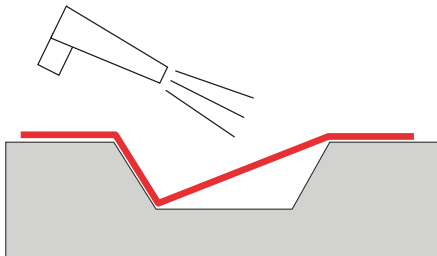
Step 3:
Heat the film to ±40-45°c.

Step 4:
With cotton gloves, press the other side of the corrugation.

Step 5:
With cotton gloves, press in the center of the corrugation.
Make sure that no air bubbles remain entrapped in the corrugated area.

Step 6:
Post heat the film to 90°c.
This step is crucial to release all tension introduced in the film during its conformation.

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Before releasing the car to the customer
- Remount all hardware removed to simplify graphic installation.
- Inspect all panel edges, to be sure the graphic is well installed and finished.
- If the external temperature is lower than 20°c, heat all graphic surface at a temperature of ±40-45°c: this will ensure long term adhesion, taking special care with all panel edges, recesses, and any overlaps.

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, with a soapy water never exceeding 50°c.
- 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, 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 C50 Ultimate S&T, heat the graphics at 50-60°c, and peel-off the film at low speed keeping an angle of 60 to 90° between the car surface and the film.
Any eventual adhesive residue can be removed with IPA.

PRODUCTS
Printable films - codes & names:
- o   13076 - C50 Ultimate White Gloss Slide & Tack
- o   07869 - C50 Ultimate White Gloss LT Grey SB Airflow

Lamination films - codes & names:
- o   13387 - C30 Ultimate Ultra-Clear Gloss Perm SB - UV Print N
- o   13181 - C30 Ultimate Clear Gloss Perm SB - UV Print
- o   13343 - C30 Ultimate Clear Matt Perm SB - UV Print