

Manual: Grafiprint cast print films for high level wrapping.

GRAFTYP

makes you stick



Manual

High level wrapping with print films

graftyp.com



WHAT IS GRAFIWRAP ?

GrafiWrap is the registered trade name for a combination of materials used for "wrapping" a vehicle.

The Grafiwrap system is in fact a sandwich made up of a Grafiprint cast print vinyl accompanied by a protective 30µm or 40µm cast laminate. In case of very deep indents, we recommend Grafiprint S38P.

Before the laminating process takes place, the print should be allowed to fully dry. This will ensure the solvent gases have evaporated and is commonly known as "gassing off". Not adhering to these guidelines could result in failure of the material. Read more about this in our manual "Ink drying methods".

A print is always laminated cold. In order to achieve a perfect adhesion between print and laminate, the sandwich of materials will have to be guided through the laminator once again to ensure the printfilm is heated by the bottom roller.

WHY CHOOSE FOR GRAFIWRAP VEHICLE WRAPPING ?



The Grafiwrap Vehicle wrapping system offers many advantages.

In today's market, it is very important for your publicity to catch the attention, the more so if your publicity is seen in the streets regularly.

Your mobile publicity will most certainly be seen by your potential customers.

In general, it is also much less expensive than placing an advertisement.

Another important factor is that it helps you getting your brand name known. The possibilities are really unlimited, the result is a very colourful publicity campaign that will certainly catch the attention of all passers-by.

Another important advantage is that GrafiWrap will protect your vehicle against chemical and mechanical influences, such as the salt for icy roads in the Winter or the brushes of a car wash.

Furthermore the wrap will protect your vehicle's paintwork against scratches, stone chips and the bleaching effects of the sun.

GrafiWrap also gives the flexibility to change advertising campaigns frequently without the need for an expensive respray.

GrafiWrap is easily removable, so whether you just want to change its design or sell the vehicle, you can return it to the state in which it was prior to the "wrap", without leaving any glue residues.

On www.grafiwrap.com you will find a magnificent movie full with tips and tricks for applying these films in a professional way.

HOW IS THE VEHICLE WRAPPING DONE ?

The vehicle or object

First of all, you have to be absolutely sure that the laquer of a vehicle has completely cured. In case of a new vehicle, this is no problem.

Attention ! If the vehicle has recently been resprayed, a 6 week waiting period is absolutely required. If the laquer has not cured sufficiently, this could result in paintwork peeling off at the removal stage (during the application process and afterwards).

Tools of the trade

- squeegee with a felt strip at one side (SPAVELC)
or a hard squeegee with a separate felt squeegee (SPATEL & VILT08)
- scalpel (cutter)
- heat gun with regulatory air pressure and temperature
- soft, clean, fluff-free gloves (GLOVE1)
- good, non-aggressive degreasing agent and/or silicone remover
- isopropanol, ethanol or "Rapid Prep"
- primer
- cleaning cloths (of which the cleaning agent is not solvent based)



The ideal environment for wrapping is a well illuminated, dust free area with a constant temperature between 17°C and 24°C. The vinyl used should also have acclimatized sufficiently. The preparation of the vehicles includes the removal of number plates, window rubbers, mirrors, the antenna, etc...

Cleaning the vehicle

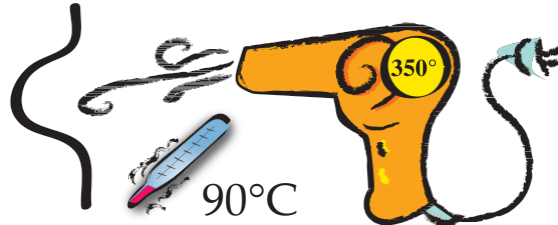
The vehicle should be cleaned a day in advance of wrapping. Why a day in advance ? So that you can be completely sure that everything is completely dry and no water will run out from the rubber trims or the indents. We use isopropanol, ethanol or "Rapid Prep" for degreasing the vehicle. Pay special attention to deep recesses. A tissue wiped over a small area and discarded after short use will prevent silicones being moved around.

TIP : For degreasing areas that are hard to reach, please use a bit of isopropanol, ethanol or "Rapid Prep" on a cotton bud.

PS : When using a cleaning agent, please always follow the safety instructions, e.g. wearing a mask, glove

Temperature settings of the heat gun when applying the vinyl:

- for small sections : 250°C
- for large surfaces : between 450°C and 600°C
- for after-heating : 350°C




If you need to heat large surfaces, always make sure that the print is not heated too quickly. You always need to heat a larger part than the piece that needs to be applied, making circular movements.

WRAPPING WITH GRAFIPRINT S30P - S34P - S38P – AE38P – AE38C – S39P – PRGLC

WRAPPING WITH GRAFIPRINT GT38SL: read manual "Wrapping with Slide & wrap films"

Use this table to choose the right film for your job.

 GRAFIPRINT MEDIA	GRAFIPRINT LAMINATES	Flat surface	Slightly curved	Strongly curved	Car wrapping	Deep indents
CAST						
S30P, S34P, S38P, S39P	LAMx30, LAMx40, LAMx45	V	V	V	V	-
AE38P	LAMx30, LAMx40, LAMx45	V	V	V	V	V
AE38C eco solvent or latex ink	LAMx30	V	V	V	V	V
AE38C eco solvent or latex ink	LAMx40, LAMx45	V	V	V	V	-
AE38C UV ink (limited flexibility due to UV ink)	LAMx40UV	V	V	V	V	-
GT38SL eco solvent or latex ink	LAMx30, LAMx40, LAMx45	V	V	V	V	V
GT38SL UV ink (limited flexibility due to UV ink)	LAMx40UV	V	V	V	V	-
PRGLC print glow	LAMx30 (LAMx40UV for UV printed film)	V	V	V	V	-

APPLICATION (Grafwrap is ALWAYS applied dry)

The print needs to be large enough to go beyond the seam towards which you are working.
We take the Smart car as an example.

The printed vinyl is now positioned on the vehicle. Make sure that the text or the design is positioned correctly on the vehicle.



Secure the print to the roof by means of 2 pieces of tape. Cut the tape in half, and remove the backing paper completely.



You are then left with a piece of tape on the vehicle and a piece of tape on the print. These are easy markers to position your print exactly as intended.



When the vinyl is positioned again as intended, gently let the vinyl fall against the vehicle.



First make sure that a hole/slit is cut at outside mirror height. Care should be taken not to make the hole/slit too big, or there will be insufficient vinyl to apply around the mirror.

To find a starting point for application, check at which height you can apply the longest strip of vinyl without having a doorknob or a key hole in the way. At this height you then begin by rubbing the vinyl from the centre outward by means of the felt squeegee. Continue in the same way upward and downward, always rubbing the vinyl from the centre outward. The felt squeegee is always used at an angle of $\pm 60^\circ$ to the vehicle, keeping your fingers on the upper side. Holding the squeegee in this manner continue to rub the vinyl.



It is very important that horizontal movements made from the centre outwards always overlap each other.



The pieces of vinyl that will not be applied on the vehicle can now be cut away. This will make further application much easier and take away the tension on the material.



In a single smooth arched movement, the vinyl that is covering the wheels can also be cut away, taking care not to cut too much off, so that it can be fitted snugly into the wheel arches.



On reaching the bumpers the vinyl should be heated for a short time at 450°C, over the largest possible surface. This should give enough pliability to the vinyl to be pulled easily over the bumper. If the vinyl is positioned correctly, rub it with the felt squeegee. If the vinyl is not positioned correctly, gently pull it loose, heat it so it returns to its original shape, and pull it over the bumper again.



Difficult areas are always easier to apply if the vinyl is heated, but we advise you not to heat the vinyl if it isn't necessary.



When you start applying the vinyl over the upper part of the vehicle, you also have to heat the vinyl over the biggest possible surface (in order to divide the elongation and not to create too much tension on a small piece of vinyl), and then pull it over the border.

Repeat this at the rear of the vehicle.

Here the vinyl also needs to be applied far enough backward, beyond the bumper.

When applying the vinyl over curved surfaces (such as the bonnet or the roof), always start applying it at the highest point of this surface (where the surface is bent the most, in most cases at the centre), and rub the vinyl from the centre (highest point) outward.

If you didn't (or couldn't) remove the window rubbers, we advise you to work in the following way. In order to see exactly where the rubbers are located (and possibly other edges of the vehicle), just explore the vinyl with your hands and press it firmly, so you can see the edges very well (or check the other side of the vehicle). This needs to be done at both sides of the vehicle.

The superfluous vinyl is gently cut away here by means of a scalpel (cutter).

When cutting away vinyl, it is very important not to stop while cutting, to ensure a single smooth cutting line.

Leave enough vinyl to be able to rub it with the plastic squeegee and to make it disappear under the rubber afterwards. If there are no window rubbers, make sure you rub the vinyl as far and as deep as possible into the indentation.

Important !

When applying the vinyl, it is important that you make sure that there are no wrinkles present in the vinyl. If you notice any wrinkles in the vinyl, gently pull it loose, heat it again, so the vinyl returns to its original shape, and re-apply.

If there are any air bubbles under the vinyl, you can easily remove them by making a small hole by means of the tip of a scalpel, and then gently press the air through the small hole.

!! Attention, you should not make holes in air bubbles that are located in the indentations.

Otherwise the small hole will become bigger and bigger, as the vinyl is under tension at this location.

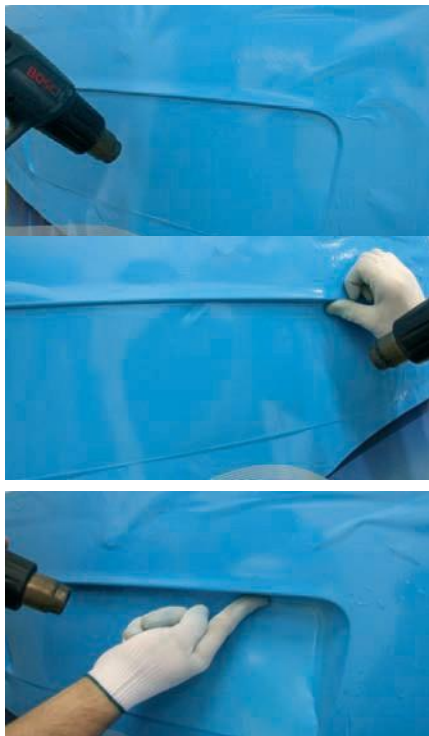


When applying the vinyl on the rear end of the vehicle (for instance the deeper part where the number plate is situated), always make sure that the piece of vinyl is perfectly positioned when you remove the backing paper, so that the design is perfectly lined up with the parts you have already applied.



For an excellent result, make use of the GrafiWrap gloves. First moisten the fingers that you will be using with soap suds. Then press the edges of the deeper part firmly with your thumb revealing its actual shape.

Heat the vinyl in such a way that all possible slight waves (tensions) disappear.



The deeper part of the indentation then needs to be rubbed in. Heat the bottom part of the indentation at 250°C while doing so, and rub and press the upper part into the indentation with your thumb.

It is very important to do this gradually without forcing the vinyl into the indentation all at once. This would simply result in ugly wrinkles or poke a hole through the vinyl with your finger.

Always heat the vinyl at the bottom edge of the indentation, and press the vinyl gently into the indentation.

In this way the vinyl is stretched over a flat part. If you heat the vinyl in the indentation during the application, you will stretch the vinyl in the indentation (in that case you will end up with less adhesive at the location where the adhesive is needed the most). The risk of the vinyl coming loose is the highest at the location where the vinyl is under tension.

The middle of the section of vinyl can now be easily pressed in by means of the felt squeegee. The superfluous air can easily be guided through the holes where the number plates are supposed to be attached.



When everything has been applied and all parts have been firmly pressed, the vinyl should be after-heated in the indentations at a temperature of 350°C (90°C on the vinyl). You need to work at a very slow pace and hold the heat gun close to the print. Once everything has cooled down, just press the vinyl firmly once again.

Procedure for applying the vinyl in double indentations (such as grooves on van pannels):

! Attention !

When making the design, you should always bear in mind that you cannot have an overlap in an indentation ! ! !



The vinyl is applied over the indentation without being pressed in.



Now press the middle part of the groove firmly with a squeegee.

Put on the GrafiWrap gloves (GLOVE1) and moisten the fingers with soap suds – especially the index finger and the thumb.



Then explore the groove with your fingers, so you can see the double indentation a little better, gently pressing the edges.



Before continuing application, place a squeegee between the surface and the print, so that the air can escape while pressing the vinyl. First start pressing the vinyl at the inner side of the indentation !

Start at the opposite side of the squeegee, i.e. if the squeegee was placed at the left bottom, you begin at the right top, and then work your way down in both directions towards the left bottom.

Before you start working the vinyl into the inner side of the groove, you should heat the complete groove so all waves disappear from the vinyl (250°C, having the heat gun blow only slightly).



It is extremely important that the vinyl is heated at the opposite side of the groove (by means of a special accessory – 250°C – air pressure at a minimum).

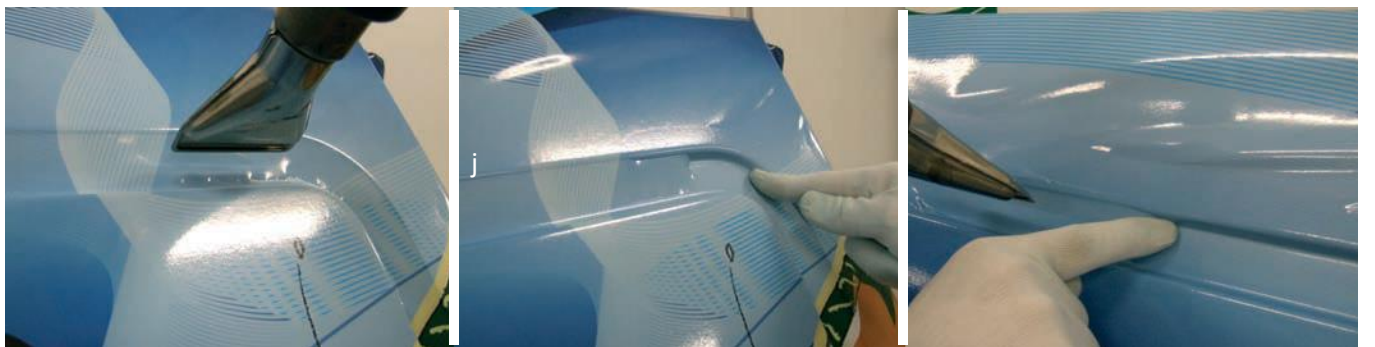
This means that the outer side of the groove is heated and that the inner side of the groove is gradually pressed in.

Why is this important ?

Working in this way, the vinyl is not stretched where it is applied in the indentation (the vinyl stretches where it is heated).



Now the vinyl can be easily pressed a little deeper into the groove. This is repeated until all the vinyl is completely applied to the inner side of the groove.



Now the opposite edge can be applied on the outer side. The inner side of the groove needs to be heated, so you can press the outer side of the groove. This is repeated until the vinyl is completely pressed into the outer side of the groove.

Don't forget to gradually press the centre part of the indentation as well.



The squeegee is still located at its place in the bottom corner of the groove !

Remove the squeegee and follow the same procedure for the remainder of the groove. Heat the outer side of the indentation and gradually press the inner side of the indentation. Then heat the inner side of the indentation and gradually press the outer side of the indentation.

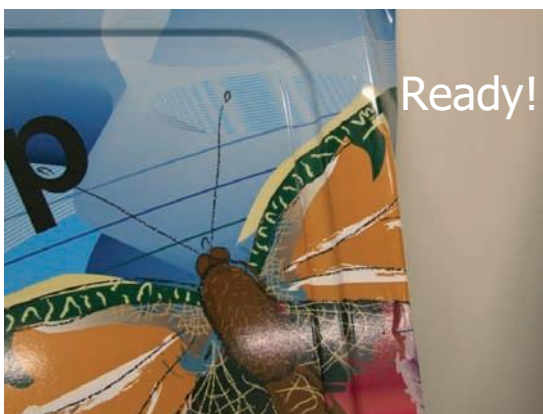


You will be left with an air bubble.

Make a very small incision in the vinyl (never in the curve of the indentation itself, but in the flat part between the 2 curves), so you can rub the air from underneath the vinyl. Heating this part a little makes the job easier.



Once the air is pushed gently through the small incision, the area should be after-heated at 350°C (picture 4).



Another interesting fact:

If after a few months or years you wish to remove the GrafiWrap, you can do so easily WITHOUT leaving any glue residues.

Simply heat the vinyl slightly on removal – in less than two hours the vehicle will be back to its original state !!

(if the printed media has been applied without a laminate or has been sprayed with varnish, it will tear into small pieces on removal). We therefore recommend the use of cast GrafiPrint film with cast laminate.

OUR COMPLETE RANGE OF SOLUTIONS

Signmaking vinyls		Wrapping films	
Monomeric Promo-series 100-series	Cast Graficast series Non-PVC GEF series Translucent TL series Etched glass films	Standard Glossy Polymeric Wrap Matt Polymeric Wrap Matt Super Cast Gloss Super Cast	Protective Paint protection film Decorative Leather Pearl Colour wave Metallic Matt Satin Brushed Carbon Stardust Flock
Print media			
Monomeric Polymeric Cast	Special formula Non-PVC Wall deco		
Laminates			
Monomeric Polymeric Cast	Special formula Non-PVC		

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