

Wrapping objects with the

AUTOMOTIVE & DECO Series



Introductory remarks.

A brief preceding study will save you a lot of time and will guarantee a better end result. Always check the following points :

- How old is the surface to be wrapped ?
- Do you see any signs of repairs ?
- Do you see any rust marks ?
- Does the object contain any plastic parts that need to be wrapped ?
- Do you have to wrap over rivets or other uneven surfaces ?
- Do you have to cover any silicone seams ?
- How big is the object ?
- Does it contain any problem zones ?

We recommend to laminate the Colour Wave films and the Metallic films with LAMX40.

Make sure all necessary equipment and materials are ready at hand before starting the job.

Pay attention to your own safety and health. Take into account all safety prescriptions of the suppliers when using electric equipment and products that are necessary to complete the job successfully.

Make sure you comply with the legislation in your country. E.g., if you wish to cover the rear window, the vehicle must have 2 wing mirrors in most countries. Also the permitted height of a sun strip may be different in every country.

The Preparation.

Tip 1: Always use Grafityp materials of the same kind in one job. Don't combine Graficast films with e.g. Grafitack films, applying one kind on top of the other. These films have different characteristics, which may have a negative influence on the end result.

Tip 2: Check whether certain plastic materials are suited for wrapping. This can be done very easily. Clean the surface thoroughly and do the drop test. If you pour water of this surface, it shouldn't form drops. If drops appear on the surface, the material is not suited for wrapping with any material. A structured surface also means a reduced adhesion, which is not to be advised.

Cleaning.

- Vehicles need to be washed thoroughly at least 1 day before wrapping them.
- Use a simple detergent to wash the vehicle and rinse it abundantly, or go to the car wash. Make sure that no dust, sand or mud stay behind in small cracks or indents. Use compressed air to dry all cracks and protection strips of the vehicle.
- Remove protection strips, number plates, antennas, mirrors, windscreen washers.
- After washing the vehicle, allow it to acclimatize for a night in the workshop.
- Make sure all wax and polishing products have been removed completely. In most cases these have not been removed completely from new vehicles. They have to be removed by means of industrial cleaning products or a silicone remover (isopropanol is not sufficient in this case).
- Avoid damage to rubber and plastic car parts when using some corrosive products.
- When everything is completely clean, the complete surface needs to be cleaned once again with isopropanol. Isopropanol removes all detergents that stayed behind on the surface.
- Other objects to be wrapped always need to be cleaned and degreased thoroughly before you start wrapping them.

Tip 3: Ask your customer whether you can remove the small 3D texts from the vehicle. These small texts, like e.g. 4x4, Tubo, 2.0D, etc... can be removed easily by heating them. If this is done with care, you can put them back afterwards by means of glue strips.

You will save a lot of time when finally wrapping the vehicle, and in most cases it will allow you to create a much nicer design. Also remove the rubber sealings of the car, wherever possible. We advise you to apply the vinyl also under the rubbers, to get a nice optical finishing touch.

The Application.

Tip 4: Make sure the workshop is dust-free, that the necessary ambient temperature has been reached, and that the job can not be complicated by direct sunlight or by a heat source. Also make sure the floor is completely clean, as the vinyl gets statically loaded during the application process, thus attracting dust very easily.

The vinyls are always applied dry.

Run a couple of tests first. They can save you a lot of work. Apply a test strip on the paintwork of the vehicle and on a side window, and compare the result.

- If the test strip sticks much harder on the paintwork than on the window, or if you see lots of air bubbles, this means that the vehicle has not been pre-treated sufficiently. Repeat the isopropanol treatment.
- If the test strip does not stick sufficiently, this means that probably a very thin layer of (silicone) protection has stayed behind on the vehicle. The pre-treatment needs to be repeated.

The tools:

- Felt squeegee
- Cutting knife
- Soft, clean and fluff-free gloves (glove1)
- Heat gun
- Extension cord
- Sufficient light
- Roll of tape
- Electric current
- Meter, felt-tip, pencil ...

The preparation:

- Place the vinyl (with its backing paper) on the vehicle. Use paper tape or magnetic holders to do so.
- Always avoid cutting in the paintwork. This can cause scratches and later on even rust marks.
- Apply some reference points where vinyl and car body meet, so you can easily place the vinyl at its exact position again.

Tip 5: In case of larger deformations in the car body (e.g. with false windows in vans) you can use the Grafiprimer. This product enhances the adhesive strength. Apply a thin layer of Grafiprimer with a cloth and leave it to dry sufficiently. Then wipe off the white film, and the adhesive strength will be enhanced considerably.

Remark: as a result of this treatment, the adhesive sometimes sticks that hard, that it stays behind on the car's paintwork when the vinyl is removed afterwards.

The application of the vinyl:

- Remove the backing paper from the vinyl.
- Position the vinyl without folds against the reference points you applied earlier.
- Make sure the vinyl is heated over its complete surface before you start deforming and rubbing it. The vinyl should also be heated where you are holding it, in order to prevent it from tearing (because of its structure).
- Rub the vinyl smoothly by means of the felt squeegee. Make sure that the air between the object and the vinyl can always escape.
- Use a heat gun to make the vinyl smooth.
- A detailed manual on car wrapping can be found on our website <http://www.grafiwrap.com>
- Cut off the excess vinyl only after it has cooled down completely.

Tip 6: If you have to apply the vinyl only on extremely curved objects, like e.g. some car wings, you always start rubbing the vinyl from the centre. In this way, the deformation will be divided equally towards all sides.

Tip 7: Be careful when using metallics, brushed aluminium, carbon and colour wave films. Make sure they are always applied in the same direction. Otherwise, it might look like joining car parts have been done in a different colour. This effect is completely caused by the structure of the films.

Tip 8: Don't overheat the vinyls. Matt vinyls may look rather glossy at the overheated areas, and the nice structure of the deco films will deteriorate when the film is overstretched.

Tip 9: Never lay a felt squeegee on the floor. Sand will creep into the squeegee, and you will make scratches on the vinyl the next time you use it.

The finishing.

Very often, the customer comes back to pick up his "unmissable" vehicle as soon as possible. Nevertheless, it is of utmost importance that the vehicle is "heated once again".

- All edges and deep indents need to be heated once again in order to remove all surface tension. If you fail to do so, the vinyl will try to return to its original form and it is possible that it will come loose in certain areas. The reheating process is done with a temperature of 350°C on the heat gun's display (= 90°C on the car's paintwork). Make sure you keep moving the heat gun in such a way that the vinyl does not get burned.
- Small air bubbles will disappear automatically after a certain period of time. Larger air bubbles on even surfaces need to be punctured to allow the air to escape.

After the job has been completed.

- Leave the car in the workshop for a night, so it can get used to its new coating. Allow it to cool down in the acclimatized area slowly.

Cleaning and Maintenance.

- The car can be washed in a car wash without any problems after about three days. However, the brushes can make scratch marks in the vinyl.
- We advise you not to clean the vehicle with a high-pressure cleaner.
- Vinyl is a soft material. Therefore the cleaning and maintenance shall only be executed with non-scouring cleaning agents, without strong solvents or corrosive ingredients. If you want to give the vehicle some additional gloss after a certain period of time, you can "polish" it. Please only use the products that are specifically meant for this application. The old application "wax on – wax off" with a polishing paste is not applicable in this case.
- Dirt that is hard to remove, such as insects, resin, etc..., needs to be removed immediately with warm water and a soapy solution.

Removal of the vinyl.

Graficast materials have been developed especially not to leave behind any glue residues after removing them. If you wish to remove the vinyl, we advise you to heat it with a heat gun. Pull off the vinyl under an angle of 90°. If any glue stays behind on the surface, you can remove it with isopropanol.

If the vinyl needs to be removed from an underlying layer of vinyl, it is possible that the underlying layer of vinyl gets damaged.

Tip 10: If any glue residues stay behind, this is often because the vinyl is too warm and the adhesive is too cold. Just wait for a moment until the heat has reached the area between the adhesive layer and the paintwork, and things will become much easier. You will find the right balance between heating and removing the vinyl after some practice.

This GrafiManual is not to be considered as a complete product manual. It is only meant as a tool, to give you an idea of the possibilities and the application of the above-mentioned products. More detailed information about these products can be found in the product data sheets and on www.grafityp.com.