

## GRAFIWRAP AUTOMOTIVE & DECO Series CALENDERED wrapping films



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### Description

The calendered Grafiwrap Automotive & Deco films were especially developed for partly or completely wrapping even and/or slightly undulating surfaces. The films are made of polymeric calendered PVC film. Some of them come with a decorative texture or flock effect, whereas others don't. The films are provided with a pressure-sensitive permanent solvent-based acrylic adhesive. The adhesive layer is protected by a high-quality silicone paper.

### Characteristics

- Finish : glossy or matt, either or not with a decorative structure or flock effect.
- High opacity.
- Very good resistance against weather influences, with an outdoor life expectancy up to 5 years.
- With an adjusted knife pressure, the film can be cut smoothly on all standard cutting plotters.
- High adhesive strength.
- Simple cleaning.
- Good chemical resistance.

### Application

The calendered Grafiwrap Automotive & Deco films have been developed especially as a less expensive alternative for cast Automotive & Deco films. They can be used for panels and slightly bent smooth surfaces.

→ *Other applications in close consultation with Grafityp !*

### Limitations

Limitations are mentioned for each product group separately in the respective technical data sheets, of which you can find the most recent version on the Grafityp website ([www.grafityp.com](http://www.grafityp.com)).

### Warranty

Please consult the General Automotive & Deco Warranty Certificate for detailed warranty declarations of the Grafiwrap Automotive & Deco films. The most recent version of this warranty certificate will be available on the Grafityp website ([www.grafityp.com](http://www.grafityp.com)).

### Mounting Instructions

Grafityp provide trainings, enabling the customer to mount the Grafiwrap Automotive & Deco films in a professional and skilled way. A detailed manual on the application of Grafiwrap Automotive & Deco films can be found on the Grafityp website ([www.grafityp.com](http://www.grafityp.com)).

### Before mounting

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

- Do you see any signs of repairs ? Repainted car parts are often not of the same quality as original parts. That can cause problems when removing the film afterwards.
- 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 ?

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 two wing mirrors in most countries. Also the permitted height of a sun strip may be different in every country.

## The preparation

Tip : always use Graftyp materials of the same kind. Don't combine cast films with e.g. calendered or non-pvc films, one kind on top of the other. They have different characteristics, which may have a negative effect on the end result.

Tip : check whether certain materials are suited for wrapping. This can be done very easily. Clean the surface thoroughly and do the drop test. If you pour water on the 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 one day before wrapping them.
- Use a simple detergent to wash the vehicle and rinse it abundantly, or go to the car wash (without wax treatment). 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 they 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.

Tip : ask your customer whether you can remove the small 3D texts from the vehicle. These small texts, like e.g. 4x4, Turbo, 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 : 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 and on a side window, and compare the results.

The tools :

- Various squeegees
- Cutting knives
- 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.

The application of the vinyl :

- A detailed manual for wrapping can be found on [www.grafityp.com](http://www.grafityp.com) (Download – Manuals).

Tip : be careful when using carbon and flock 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 film.

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

Tip : 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 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 slowly in the acclimatized area.

## 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.
- Matt and structured films get dirty faster than glossy films. A melamine sponge can do wonders (see manual "Cleaning" in the download section on [www.grafityp.com](http://www.grafityp.com)).

## Removal

The Grafiwrap Automotive & Deco films have been developed especially not to leave behind any glue residues when removing them. If you wish to remove the vinyl, we advise you to heat it with a heat gun. Pull off the film 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 : if any glue residues stay behind, it 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 a lot easier. You will find the right balance between heating and removing the vinyl after some practice.

## Product range

The Grafiwrap Automotive & Deco product range (calandered) consists various product series :

Reference	Description	Structured	Air Escape Adhesive technology	Thickness film (DIN 53370) *
MPW	Colour change film matt			100 µm
GPW	Colour change film glossy			100 µm
PC	Carbon film	☺		150 µm
FL	Flock effect film	☺		100 µm

For an exact impression of the various references and an overview of the available deco effect and leather look colours, we refer to our Automotive & Deco colour cards.

\* The thickness of the Grafiwrap Automotive & Deco films may vary slightly. The values mentioned are average values, obtained from a series of measurements.

## Product Characteristics

A detailed overview of the product characteristics can be found on the respective technical data sheets, of which you can always find the most recent version on the Grafityp website ([www.grafityp.com](http://www.grafityp.com)).

## Storage Instructions

All Grafiwrap Automotive & Deco materials always need to be stored in their original packing and with the original protection flanges (and preferably stored vertically).

In order to avoid any loss of quality, the Grafiwrap Automotive & Deco materials should also be stored in suitable conditions, that is at a temperature between 10 and 20°C and a relative humidity of 50 %.

Under these conditions the Grafiwrap Automotive & Deco materials can be stored up to two years.

## Remarks

- The colour of the Grafiwrap Automotive & Deco films may give off slightly because of over-pigmentation, but as the film has been coloured in the mass, this will have no influence on the UV-resistance and the eventual colour of the film.
- As the colour of the film can differ slightly for each production run, we advise you not to use films with different batch numbers in one single and critical job.
- The calandered Grafiwrap Automotive & Deco films are also suited for printed applications, except for the Flock film. In order to maintain the structure of e.g. carbon films, the print should not be laminated. Please bear in mind that the warranty period will be considerably less for outdoor applications, as the ink will not be protected against scratches, UV-radiation, etc...

## Important

The information mentioned in this product bulletin is based upon tests that were executed by Grafityp and that we consider to be reliable. The information always represents an average, a minimum or a maximum value, and should be considered as such. It is only given for your information, and does not give any guarantee. Grafityp cannot be held responsible for any damage, either direct or indirect, resulting from the use of the film. It is up to the user to decide whether or not the product is suited for his particular application.

## Technical Service

If you have any technical questions with regard to the Grafiwrap Automotive & Deco films you can always contact our technical department :

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