

Scope of Application

BRUXSAFOL car wrapping films are particularly suitable for effective and temporary application to a vehicle.

In order to achieve a high-quality result of the application (and removal) and in subsequent use, it is a basic prerequisite that our processing and care guidelines are adhered to.

The paintwork of the vehicle to be wrapped must be fully intact and may therefore have no rust spots, scratches, stone chips, porous areas or other damage.

In case of repainted surfaces, BRUXSAFOL cannot guarantee that no damage will occur during later film removal.

In addition, the paint layers must be completely hardened and dry, otherwise solvent residues may degas from the painted surface, which reduces the adhesive force and also results in the formation of bubbles and shrinkage of the film. Therefore, the film may be applied to new or repainted vehicles only after at least six weeks.

BRUXSAFOL car wrapping films may only be applied to vehicles with plastic parts if these have painted, smooth surfaces. If in doubt, the following test can be carried out: Wet the surface to which the film is to be applied with water. If the water drips off the surface, film application is inadvisable. If the water drips off without large-scale droplet formation, the film can be applied to the painted plastic surface.

BRUXSAFOL films from the CC+ 4000 / CC+ 4200 series are cast PVC films and can be deep-drawn into corrugations with the help of heat. For this, the film must be heated to about 50 °C. After the application, all deep-drawn areas, borders and edges must be carefully heated again to about 110 °C with the help of an infrared thermometer and a heat gun. This ensures that the film remains in position and doesn't peel off again.

In the case of applications in incisive corrugations (sharp-edged, angular corrugation geometry), the film must be worked in, cut to size and adhered with an overlap.

BRUXSAFOL films from the CC+5000 series are suitable for leveled and multiply slightly curved surfaces. These film types may not be hot deep-drawn into deep corrugations on the spot, because they are calendered. In depressions, they must be worked in, cut and adhered with an overlap.

Printing on these film types is not foreseen and is done at your own risk. In this case, any guarantee claims will be rejected by BRUXSAFOL.

RECOMMENDED TOOLS:

Car CLEANER

Spray bottle, 500 ml, Art. no. T22612

Matt Speed DETAILER

Spray bottle, 500 ml, Art. no. T22642

Gloss Speed DETAILER

Spray bottle, 500 ml, Art. no. T22683

CAR WAS

Bottle, 500 ml, Art. no. T22601

Surface Cleaner

Bottle, 1 L, Art. no. T21012

Premium CARNAUBA WAX

Can, 200 ml, Art. no. T22621

Lacquer Sealant

Bottle, 500 ml, Art. no. T21018

Steinel Heat Gun + thermometer

Art. no. T26006 and T26008

Cleaning Cloth, blue Art. no. T4200

Cleaning Sponge

Art. no. T22630

Lacquer Puck Black

Art. no. T22650

Wash Glove Art. no. T22690

Alcantara Stripe

Art. no. T18072

3M-Gold Squeegee

Art. no. T18060

Olfa Cutter SAC-1 30°

Art. no. T5020



Checking the selected film

Before applying the film, check it for visible defects. This film may not be processed if you find defects. Please contact our internal sales. We explicitly point out that complaints due to pre-existing defects will generally not be accepted if made after application.

For one wrapping project, only films from one single batch should be used. Otherwise there may be colour deviations or other visible defects.

An unwrapped sample is to be archived in A4 size for documentation.

Recommended tools for this step:

T22612, T22601, T21012, T22630, T22690, T4200

Preliminary Cleaning

In order not to affect the adhesive strength of the material, the substrate must be free of grease, dust and other dirt. Therefore, pre-cleaning must be carried out with our cleaning products, which are specifically suitable for this purpose. Clean all surfaces to be wrapped only with **BRUXSAFOL Surface Cleaner** (T21012). Do not use any other cleaning agents. Non-compliance will lead to negative effects on the adhesive behaviour and later film removal.

The vehicle must be thoroughly cleaned before the application (ideally the day before).

We recommend washing in a car wash (brush wash without additional programmes). After that, the surfaces, in particular the edges and corrugations, should be checked for remnants of polish similar remnants and cleaned with the surface cleaner. Use only cleaning products approved by BRUXSAFOL. Other products have a negative effect on the adhesive behaviour and film removal. Prior to application, interfering vehicle parts such as

exterior mirrors, headlights, door handles or trim strips must be removed if necessary.

If there is no car wash nearby, the following pre-cleaning method is alternatively possible:

First of all, rinse the entire vehicle with water. Then apply CAR WASH directly to the well-moistened cleaning cloth or cleaning glove and wash the entire vehicle from top to bottom. Rinse out the cleaning cloth or glove regularly in water in between times. Then rinse the car with clean water. Make sure that the vehicle has completely dried before applying the film.

Coarse dirt (e.g. insect and tar residues) can easily be removed with the universal cleaner in connection with a wet cleaning sponge.



Recommended tools for this step:

T21018, T4200, T18060, T18072, T5020, T26006

Application / Dry installation

The vehicle must be completely dried, thus, it must be checked for any remaining moisture in corrugations or under rubber seals and dried with the heat gun if necessary.

In order to achieve the best possible application result, the vehicle should be acclimatised overnight to an installation temperature of $20\,^{\circ}\text{C}$ – $23\,^{\circ}\text{C}$.

We recommend that you carry out a test application after the vehicle has been pre-cleaned and before the final application. After 24 hours, check the final adhesion of the film. Poor final adhesion can occur if a nano, ceramic or glass-ceramic sealant has been applied to the paint. These sealants must be professionally removed prior to installation.

Based on many years of experience, we consider it to be absolutely necessary to use our lacquer sealant before applying the film. It protects the paint and also makes the residue-free removal of the film easier.

This applies especially to areas that are particularly affected by environmental influences (horizontal surfaces, e.g. roofs, bonnets). Apply the lacquer sealant with the help of a microfibre cloth and work it in with circular motions. An approx. 3 cm wide strip must always be left out to the next edge or corrugation. In addition, especially at edges, the surface pre-cleaner must be used (undiluted, with the help of a microfibre cloth) in order to achieve optimum adhesion.

Light-coloured films, with and without a metallic effect, often have a lower opacity than dark or coloured car wrapping films. For this reason, the colour of these films may appear to change in particular when they are applied to dark paints. A general test application has proven to be helpful in giving the vehicle owner an impression of the visual effect.

The use of BRUXSAFOL car wrapping films with the same batch number is a basic prerequisite for achieving a homogeneous colour result on the vehicle to be wrapped. These batch numbers are noted on our invoices and/or cardboard boxes.

In the case of matt films, attention must be paid to the production-related running direction when applying, otherwise the result will not be homogeneous. Furthermore, textured films in particular must not be overstretched, as this results in substantial shadow formation.

To adhere the films in 3D and thus apply them to curved components, please use a car wrapping heat gun and keep it constantly in motion so that the film is not damaged. Please note the production-related differences during processing (cast, calendered, air duct adhesive). Likewise, the other specifications from our technical data sheets must be complied with and taken into account.

The final tempering is carried out at a temperature of 110 °C with the help of a heat gun.

This is essential especially for films with air duct adhesive. Use an infrared thermometer that allows you to accurately measure the heating of the film. Finally, cut the edges of the film, but only after cooling, or fold them around the edges.

If there are still small air bubbles (smaller than 3 mm) under the colour film after the application, they should no longer be visible after three weeks at the latest, depending on the ambient temperature.

Additional recommendation: if there are more than 3 visible particle inclusions simultaneously on a component (e.g. a wing), new film should be applied in order to achieve a high-quality result.

The vehicle must rest at a constant temperature for at least 24 hours after the application has been completed. During the application, particular care should be taken to ensure that the vehicle is not exposed to any large temperature fluctuations if at all (e.g. due to changing its position outdoors), as this negatively affects the film material. The film reaches its final adhesion after 72 hours.

Before then, the vehicle may not be driven through a car wash (textile wash without hot wax) or cleaned with a high-pressure cleaner, as otherwise the film may detach at edges and corrugations. After this time period, BRUXSAFOL car wrapping films may only be cleaned by hand washing with the help of our cleaning agent or cleaned in a car wash by a textile wash without a hot wax programme. A minimum distance of 1 meter must be maintained if cleaning with a high-pressure cleaner.

Depending on the duration and frequency of use of the film-wrapped vehicle, experience has shown that careful cleaning and care is recommended at least once a month in summer and at least twice a month in winter. In the case of particularly aggressive soiling (such as tar, road salt residues, bird droppings, insect residues, tree resin, pollen, damp leaves), prompt cleaning is required in any case.

Therefore, regular cleaning and care by hand with the specially developed proprietary products is required. Cleaning and care must be done very carefully. BRUXSAFOL accepts no liability whatsoever for improper cleaning/care.



Recommended tools for this step:

T22642, T22683, T4200, T22650, T22621

Post Installation Care

The professional application of our high-quality car wrapping films is the first pillar. The second pillar is maintaining the quality, which can only be ensured with the help of our care products.

Especially after the application and before the first use, we explicitly recommend the use of our Gloss/Matt Speed DETAILER or our Premium CARNAUBA WAX, as this is the only way to seal the open-pore film and protect it against environmental influences. The highest UV load is particularly measured at horizontal applications. The Gloss/Matt Speed DETAILERS – for glossy or matt films, depending on requirements – are characterised by quick and easy application. Simply spray on the cleaned surface and rub it in – done! The protective effect lasts for about two to three weeks.

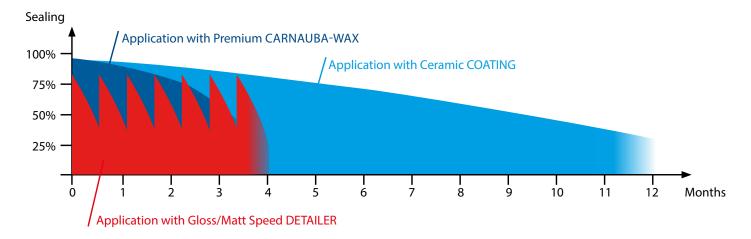
The Premium CARNAUBA WAX, on the other hand, offers permanent protection in a class of its own that lasts for three to four months. This premium wax has been developed for both glossy and matt films.

After cleaning the surface, take a hazelnut-sized amount of the wax and spread it on the black lacquer puck. Then apply the wax to the film evenly with circular motions. After a few seconds a dry smear forms, which can then be wiped off with the cleaning cloth. The wax residues do not have to be completely removed. In fact, it is advantageous if a small remnant of the dry wax residues remains on the film.

To achieve maximum effectiveness of Premium CARNAUBA WAX (one of the hardest plant-based waxes in the world), we recommend a second step in which the Premium CARNAUBA WAX is heated, as a result of which it liquefies and binds perfectly with the film. This can be done by rubbing with the palms of your hands or by parking the vehicle for 30 minutes in direct sunlight.

After this step, let the Premium CARNAUBA WAX cool briefly. It then dries spontaneously and hardens into a "wax shell". Remove any remaining polishing stains with the cleaning cloth – done!

Application recommendation*



^{*}The efficiency strongly depends on the climate zone, environmental influences, vehicle use, number of vehicle washes, degree of soiling, parking situation of the vehicle. The graphic is for the purpose of comparison only.



Removal

Recommended tools for this step:

T21012, T22612, T26006, T4200, T5020

The current terms of care and use issued by BRUXSAFOL are to be explained and handed over to the customer together with the vehicle wrapped with BRUXSAFOL car wrapping films.

Removal of BRUXSAFOL car wrapping films

BRUXSAFOL car wrapping films are equipped with high-quality adhesives with permanent final adhesion. It cannot be ruled out that adhesive residues will remain on the substrate when peeling off. However, these can be removed with a silicone-free citrus-based industrial cleaning agent. BRUXSAFOL gives no guarantee or warranty for the speed or ease of removal of BRUXSAFOL car wrapping films.

A prerequisite for the detachability of the BRUXSAFOL car wrapping films is a base surface and ambient temperature of at least +20 °C. The BRUXSAFOL car wrapping films should be carefully detached at one corner with the help of a knife and slowly peeled off at an angle of 180°. In practice, peeling off at an angle of 30° has also proven to be advantageous. The peeling process is made much easier by simultaneous, moderate heating of the adhered film with a heat gun to +40 °C (max. +60 °C). The use of a commercially available superheated steam device is also recommended. The detachment behaviour is also significantly influenced by the pre-cleaning, the type and nature of the base surface and the conditions of use.

Warranty notes

Warranty and liability are excluded in the event of non-compliance with the processing guidelines as well as the terms of care and use. The durability of the vehicle wrapping with BRUXSAFOL car wrapping films is determined, among other things, by exact compliance with the processing guidelines as well as the terms of care and use. Further information on the durability can also be found in the data sheets associated with the product.

The processing (application and removal) of BRUXSAFOL car wrapping films may only be carried out by qualified specialist personnel (i.e. trained and experienced advertising technicians or applicators).

The performing, qualified specialist personnel is responsible for the quality of the application. The owner of the film-wrapped vehicle is responsible for compliance with the terms of care and use. The information contained in these processing guidelines is based solely on our current knowledge and experience. It does not represent an agreed quality, nor the assurance of certain properties or a guarantee of quality and/or durability with regard to our BRUXSAFOL car wrapping films. We will not compensate the costs for the removal of a wrapping.

If the vehicle owner determines a visual change in the film, the specialist company that applied the film must be consulted immediately in order to avoid possible damage to the vehicle.

Warranty and liability are excluded in particular in the following cases:

- new paintwork that was not fully dry or not fully hardened at the time the film was applied
- application to unsuitable base surface and on incorrectly executed paintwork
- incorrectly prepared base surface
- use of BRUXSAFOL materials in combination with third-party materials
- · use of films from different batches for one wrapping object
- use of products or product combinations that are not recommended for the intended application
- incorrect or unprofessional application carried out by inappropriately qualified persons
- paint detachments during removal of the film as well as paint changes (e.g. "phantom images")
- Film detachments from sharp-edged angular corrugation geometry (often found in commercial vehicles such as delivery or box vans)