

# PRODUCT BULLETIN

## APPLICATION AND REMOVAL METHOD

# Cast HEXPRESS ONE Vinyl Film

# CAST HXONE

### REQUIRED EQUIPMENT

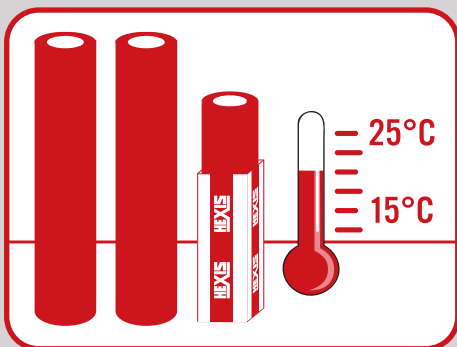
- › Tesa® 50110 adhesive tape
- › Masking tape or magnets
- › Microfibre cloths
- › ProTech® SHAMPCARV2 car body shampoo
- › Liquids for the cleaning of application surfaces:
  - › SHAGREMOV
  - › SHAGCLEANER
- › Liquid for an easier application: MAGICSPRAY
- › Gloves for full wraps SHAGGLOVE
- › Squeegees of your choice from the catalogue
- › ROLLRIV application wheel for application over rivets
- › RIVETBRUSH application accessory for riveted surfaces
- › RSSEAL edge sealing tape
- › VR7077 sealing varnish
- › SHAGGUN heat gun
- › PISTLASER3 laser thermometer
- › Different HEXIS application tools
- › Anti-static copper tinsel ANTISTATIC
- › Cleaning agents

### STORE YOUR FILMS UNDER APPROPRIATE CONDITIONS

Keep the films away from all major source of heat (radiators and heaters, direct exposure to sunlight, etc.): the best temperature ranges from 15 °C to 25 °C (from 59 °F to 77 °F).

Store them in an atmosphere with low humidity (with relative humidity between 30 % and 70 %).

Keep the films in their original packaging. Each opened roll must be stored vertically or suspended in order to avoid pressure marks on the contact surface.



Application methods are based upon HEXIS' experience and are non-restrictive. HEXIS offer training sessions, the necessary support to ensure optimal application of their products. Comply with instructions to ease application of HEXIS films. The illustrations in this document are representative and not binding; the accessories and products used may differ depending on technical and commercial developments.

### FEATURES

The HXONE series is composed of a 100-110-µm (upon product code), super glossy, multi-layered, cast film, a transparent surface protection film and a HEXPRESS ONE technology liner. Due to their high technical performance and conformability, they may be used on curved or textured surfaces (weldings and rivets). This film range is specially designed for vehicle full wraps.

The combination of ultra-flexible, cast vinyl and advanced HEXPRESS ONE technology allows you to obtain high quality results while reducing the time required for application. This technology allows for easy repositioning of the vinyl on the substrate during application.

### PREPARING YOUR APPLICATION SURFACE

HEXIS films can be applied to a wide variety of substrates as long as the target surface is clean, dry, smooth, non-porous and free from any traces of oil, grease, wax, silicone or other contaminants. To avoid unexpected outcomes, always assume that every substrate is dirty and needs to be cleaned (cf. chapter 3).

Perform a preliminary trial on a small surface area to check that the substrate remains undamaged.

For further information on the films used, please refer to the technical data sheets available on our website at [www.hexis-graphics.com](http://www.hexis-graphics.com).

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## 1. RECOMMENDATIONS:

- › The colour of the films is controlled by HEXIS in order to ensure faithful reproduction of their colour tints. Nevertheless, in the case that your project requires the use of several rolls of the same colour reference, HEXIS recommend using only a single batch number of each reference.
- › Avoid any application of HXONE film on the window and body panel seals, any unpainted ABS plastics (trim strips, bumpers, rear-view mirror casings, etc.).
- › The film accumulates static electricity during unwinding, handling and liner removal. Dust is then attracted and trapped by the film, which can alter the final appearance. Therefore, to eliminate this static electricity, HEXIS recommend placing an anti-static copper tinsel between the adhesive and the liner, in the corner opposite to the starting point for removing the liner. The tinsel must be long enough to touch the floor during film handling.
- › The best adhesion of the cast films is achieved after 24 hours of contact.

## 2. PRELIMINARY TEST OF THE APPLICATION SURFACES:

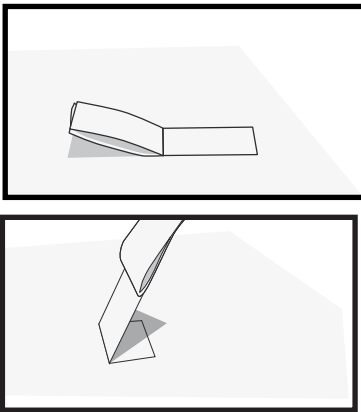
Before proceeding with any application, the installer must first inspect the substrate and the paint to which the film will be applied.

The installer and the customer are responsible for the suitability evaluation of the target surface to be covered.

### 2.1. Preliminary inspection of the substrate:

- › Any new paint must be dried for at least 7 days at 25 °C (77 °F) in order to degas completely. A degassing test must be carried out before applying the film.
- › Any old, powdery or flaky paint must be sanded and renewed before application and must undergo a tear-off test.

### 2.2. Tear-off test:



Using a TESA® 50110 adhesive tape, or similar, apply it to a surface of 2.5 cm x 5 cm (1 in. x 2 in.) plus some overhang material for easier removal. Fold and promptly tear it off perpendicularly to the substrate surface. The film must generate a certain resistance during its removal. Repeat this process in several places.

*> On request, HEXIS can provide you with a Tesa® adhesive tape in the 2.5 cm x 5 cm (1 in. x 2 in.) size. HEXIS cannot be held liable for any damage to the substrate following the execution of this test.*

### 2.3. Degassing test:

Use a square piece of around 15 cm x 15 cm (6 in. x 6 in.) of self-adhesive polyester or of the film to be applied. Wait for 24 hours or 2 hours at 65 °C (149 °F). The appearance of bubbles indicates that the substrate has insufficiently degassed. Therefore, this process should be repeated after a couple of days; or the procedure described below should be carried out.

### 2.4. Degassing procedure with flame treatment:

(Polycarbonate, translucent or diffusing methacrylate, expanded PVC, etc.)

This method consists of changing the surface tension of a substrate by swiping it with the flame of a gas burner. Using the flame's blue tip, proceed evenly with fast sweeps horizontally and vertically along the whole substrate surface.

**!** MOVE THE FLAME IN SWIPING MOTIONS ON THE SUBSTRATE (RISK OF DESTROYING THE SUBSTRATE IF A FIXED POINT IS HEATED MORE THAN A SECOND).

The film must be applied immediately after as this light surface treatment disappears after a few minutes.

> HEXIS are not liable for any bubbles caused by degassing.

### 3. CLEANING:

Cleaning of the substrate is mandatory before performing the film application. It should always be assumed that the substrate is contaminated with dirt. Some residues or soiling may not be visible; however, they may impact the adhesion of the film.

**!** Before using any cleaning liquids or chemicals, please refer to the Technical Data Sheets and Safety Data Sheets available for download on our website [www.hexis-graphics.com](http://www.hexis-graphics.com).

#### 3.1. Clean or soiled surface appearance:

For vehicle wraps, it is advised to wash the vehicle with the SHAMPCARV2 vehicle body shampoo, then carry out a final cleaning using the SHAGCLEAN product.

#### 3.2. Heavily soiled surface appearance:

For vehicle wraps, it is advised to wash the vehicle with the SHAMPCARV2 vehicle body shampoo, then use the SHAGREMOV product.

**!** Work in a ventilated area. Wear protective gloves and goggles.

Prior to treatment, perform a compatibility test on a small, inconspicuous surface area of the substrate to be treated. Certain plastic materials may be damaged by the SHAGREMOV product.

- › Spray the SHAGREMOV product on the dirty surface and spread it evenly using a dry cloth.
- › Wait for a few minutes. Then spray the SHAGREMOV product again and wipe the surface dry with a clean cloth or squeegee.
- › When the substrate is clean and dry, carry out a final cleaning with the SHAGCLEAN product.

#### 3.3. Special case:

It is advised to adapt the preparation methods to the substrate type and its condition. Thus, painted surfaces must be dry and hard, baked paints must be cooled down. Air-dried paints or car paints need to be dried for a minimum of one month before applying the film.

- › For bare metallic surfaces in the case of a full wrap:
  - › Clean the substrate with soapy water and then with a cloth soaked with the SHAGCLEAN product.

**!** Refer to the Product Safety Data Sheet prior to use.

- › Thoroughly wipe down the surface after the cleaning process.

### 4. APPLYING THE HXONE FILM:

It is mandatory to use the prescribed «dry» application method with the HXONE film, due to its HEXPRESS ONE liner.

**SHAMPCARV2**  
Concentrated vehicle  
shampoo



**SHAGREMOV**  
Powerful cleaning  
agent



**SHAGCLEAN**  
Cleaning and  
degreasing finishing  
agent



The HEXPRESS ONE technology allows for easy repositioning of the vinyl on the substrate during application.

However, the HXONE films must be firmly squeegeed to achieve optimum adhesion on the substrate.

**HEXIS tip:** To enhance the surface sliding of the squeegee on the film while also limiting the risk of micro-folds during this phase, the MAGICSPRAY product can be sprayed on the squeegee surface as soon as necessary, until the film application is completed.

Before any application of the HXONE film, make sure that all surfaces are clean, paying particular attention to critical areas such as corners and edges.

The ideal application temperature is between 15 °C and 25 °C (59 °F and 77 °F) (preferably between 20 °C and 25 °C (68 °C and 77 °C)) and must be respected for the ambient, substrate and film temperatures.

The HXONE films should be oriented in the same direction on each side of the vehicle during their application (FIG. 01), particularly during a full wrapping process in order to obtain a uniform visual aspect.

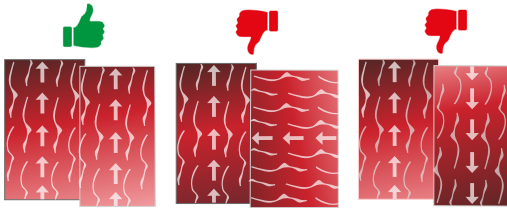


Figure 01

The degree of humidity may also influence the amount of time it takes until the definitive adhesion of the film to its substrate is achieved.

*Caution: Any heating operation indicated below must be carried out with a heat gun in sweeping motions at a reasonable distance. The temperature must be checked with the laser thermometer on the film's surface, in the heated area, immediately after withdrawal of the heat gun's hot air flow.*

After the full wrap of a heavy deformation, it is necessary to heat the deformation again to 80 °C - 90 °C (176 °F - 194 °F) in order to ensure the good adhesion of the vinyl over time.

**!** *If the heat flow is maintained on a fixed spot or near the surface of the film, it may result in an irreversible deterioration of the product. The temperature measurement must be carried out outside of the heat gun's hot air flow as this would give a wrong measurement and could lead to an insufficient reheating temperature (risk of the film peeling off later).*

#### 4.1. First steps and application of HXONE film to flat surfaces:

The HXONE films are provided with a transparent protective layer on the surface to protect them from dust, scratches, handling marks, etc. during storage and after opening.



Figure 02

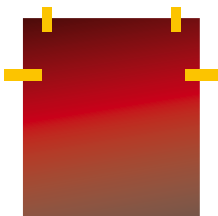


Figure 03

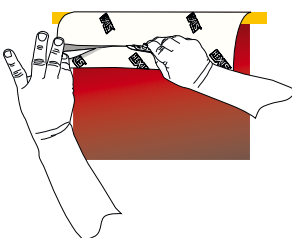


Figure 04

- › Wear gloves (SHAGGLOV). Place an anti-static copper tinsel (ANTISTATIC) between the adhesive and the liner, at the bottom of the film, preferably in a corner. The tinsel must be long enough to remain in contact with the floor during film handling.

- › Position the film on the target surface and tape it into place without stretching it. (FIG. 02)

- › Apply a strip of masking tape or magnets across the upper section of the graphic in order to create a horizontal hinge, preferably on a flat part of the surface. (FIG. 03)

- › Make a slit with the SHAGCUT in the liner, at a distance of about 30 cm from the edge, then remove the upper part. (FIG. 04)

- › Start applying the film with a squeegee (previously covered with felt), by forming a 30° angle with the substrate and working from the centre towards the edges. (FIG. 05)

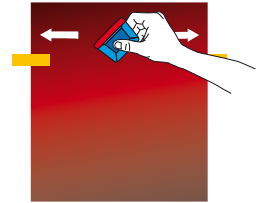


Figure 05

**HEXIS tip:** To enhance the surface sliding of the squeegee on the film, the MAGICSPRAY product can be sprayed on the film's surface as soon as necessary, until the film application is completed.

- › Remove the top hinge and continue removing the liner, depending on the surface structure (cf. paragraphs below). (FIG. 06)
- › During application to flat surfaces, squeegee the entire surface while removing the liner steadily, firmly pressing on the edges and corners.
- › At this stage, the transparent protective film can be removed.

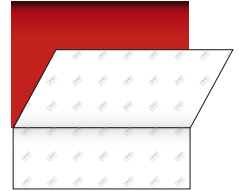


Figure 06

⚠ *If an anti-static copper tinsel had been attached to the adhesive-coated film, it can now be removed.*

#### 4.2. Undulated surfaces: Heavy undulations: "extended application":

After having completed step 4.1, there may be slight or heavy undulations for which the application process will be different.

- › Gradually remove the liner while pulling it downward. (FIG. 07)
- › Apply the film horizontally with your thumb or a squeegee by progressing slowly into the hollow of the undulation.
- › Start by applying the film to the hollow part ①, then to the peak ② and finally to the hollow part ③.
- › Continue onto the next undulation ④, then keep going ⑤ until completion of the application.
- › As the film was not stretched, it is not necessary to heat again to 80 °C (176 °F).

⚠ *In the hollow parts, the HEXPRESS ONE adhesive technology requires sufficient pressure in order to completely expel any air that could remain in the micro-channels. This is because unevacuated air is invisible to the naked eye that may result in the film peeling from the substrate.*

**HEXIS tip:** To enhance the surface sliding of the squeegee on the film, it is highly recommended to spray the application liquid MAGICSPRAY on the film's surface as soon as necessary, until the film application is completed.

#### 4.3. Concave surfaces:

Any heating operation indicated below must be carried out with the heat gun in sweeping motions at a reasonable distance. The temperature must be checked with the laser thermometer on the film's surface, in the heated area, immediately after withdrawal of the heat gun's hot air flow.

⚠ *If the heat flow is maintained on a fixed spot or near the surface of the film, it may result in an irreversible deterioration of the product. Do not measure the temperature in the air flow of the heat gun. This would give a wrong measurement and could lead to an insufficient reheating temperature (risk of the film peeling off later).*

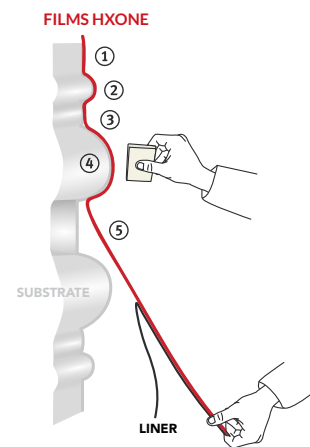


Figure 07

After having completed step 4.1., proceed as follows:



Figure 08

- ▶ Remove the whole liner. (FIG. 08)

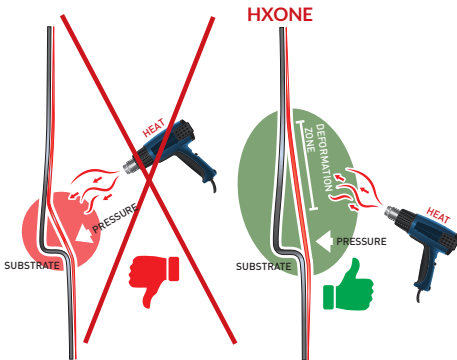


Figure 09

- ▶ Stretch the film over the substrate so that it touches the peaks only. (FIG. 09)

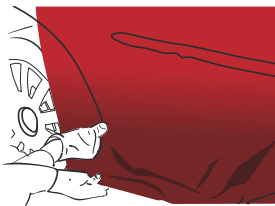


Figure 10

- ▶ Apply the peak with your finger or a felt-covered plastic squeegee. (FIG. 10)



Figure 11

- ▶ If necessary, lift the film, stretch it again and apply it.

- ▶ Heat to a temperature ranging from 40 °C to 50 °C (from 104 °F to 122 °F) and lower your thumb in the hollow part so as to properly apply the adhesive. (FIG. 11)

**!** *HEXIS recommend that particular attention is paid to the application of HEXPRESS ONE films to concave areas. The HEXPRESS ONE technology requires sufficient pressure to be applied at the film's surface in order to completely expel any air that could remain in the micro-channels. This is because unevacuated air is invisible to the naked eye that may result in the film peeling from the substrate.*

HEXIS tip: In order to reduce the risk of micro-folds generating during the air evacuation phase, it may be necessary to increase the surface sliding of the squeegee on the film. For this purpose, MAGICSPRAY can be sprayed on the squeegee surface whenever needed, until the film application is completed.

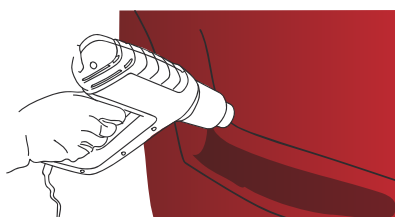


Figure 12

- ▶ Once this step is completed, reheat all the hollow parts that have undergone heavy deformation between 80 °C and 90 °C (176 °F and 194 °F) to thermoform the product definitively. (FIG. 12)

#### 4.4. Convex surfaces:

After having completed step 4.1., proceed as follows:

- › Remove the liner.
- › Heat the film to a temperature ranging from 40 °C to 50 °C (from 104 °F to 122 °F) (FIG. 13) then stretch the film so as to completely wrap the convex surface. (FIG. 14)
- › Apply the film over the whole surface using a felt-covered, plastic squeegee, and carefully wipe over the convex area (FIG. 15) to eliminate any tensions and folds.
- › If necessary, lift the film, stretch it again, completely wrap the convex surface and apply it. (FIG. 16)
- › After this operation, heat to a temperature ranging from 40 °C to 50 °C (from 104 °F to 122 °F) (FIG. 17) and stretch to eliminate all folds using the squeegee.
- › Cut, if necessary, and heat all the edges again to a temperature ranging from 80 °C to 90 °C (from 176 °F to 194 °F).
- › The application is complete. (FIG. 18)

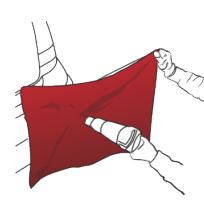


Figure 13



Figure 14

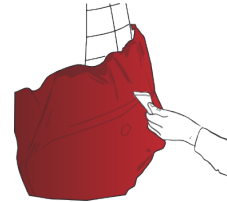


Figure 15

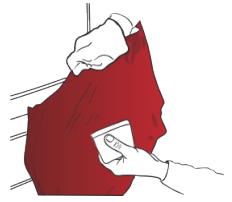


Figure 16

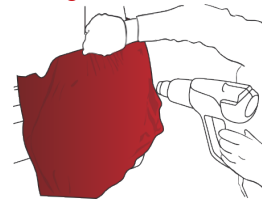


Figure 17

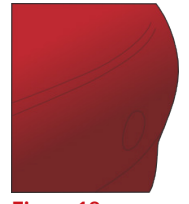


Figure 18

⚠ Take particular care when (FIG. 13) to (FIG. 18) heating the stretched film. The heat gun's position must not be perpendicular to the film's surface. Incline the heat gun so as to heat a larger area. Keep the heat gun constantly moving. Never heat a reduced surface area over a prolonged period of time.

#### 4.5. Riveted surfaces:

After having completed step 4.1., proceed as follows:

- › When you encounter a rivet, stretch the film. Gently heat to a temperature ranging from 40 °C to 50 °C (from 104 °F to 122 °F). Then dab the rivets with the RIVETBRUSH to apply the film.
- › Then slide the ROLLRIV (FIG. 19) over the film to adhere it to the entire rivet surface. Press it around the entire rivet using a squeegee or your thumb.
- › To finish, use the RIVETBRUSH and firmly apply it to the rivets (still by dabbing).
- › Then heat each rivet again to 80 °C - 90 °C (176 °F - 194 °F).(FIG. 20)

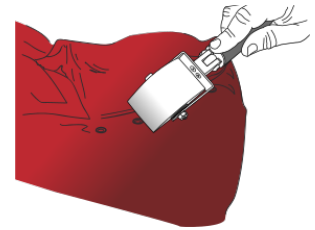


Figure 19

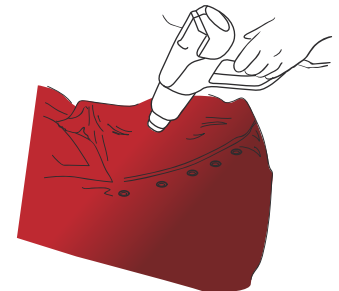


Figure 20

#### 4.6. Overlaps:

If two film parts need to overlap, it is important to comply with the following instructions in order to achieve optimum adhesion of one film on the other:

- › Clean the lower film using a microfibre cloth soaked with the SHAGCLEAN product. Leave to dry.

⚠ *If the upper film needs to be repositioned, separate it from the lower film with extreme care.*

- › Apply the upper film. Press down strongly on the overlapped area using your gloved hand or a squeegee while heating the area at around 50 °C (122 °F).

## 5. ADDITIONAL INFORMATION FOR A FULL VEHICLE WRAP:

- › For vehicles, avoid any application of film on the window and body panel seals.
- › Whenever application to a horizontal surface is necessary, such as on bonnets or roofs, a slight fading of colour and gloss may develop over time compared to vertically oriented areas. As these areas suffer maximum exposure to sunlight and climatic influences, they are not covered by the HEXIS warranty regarding durability.
- › If a seam is necessary between two widths, HEXIS recommend you overlap the film by 1 cm (0.4 in.), as follows:

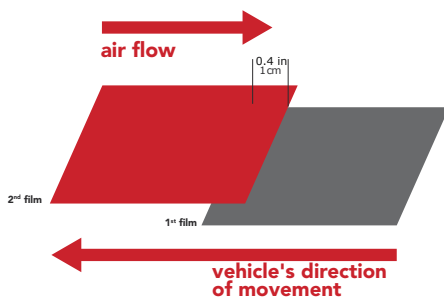


Figure 21

- Horizontal overlapping of the HXONE film: the upper film (above) is applied to the lower one (below). (Tiling principle).
- Vertical overlapping of the HXONE film on a mobile surface: assuming you always apply the film starting from the rear of the vehicle and moving to the front, then the overlapping will be done in the same way. (FIG. 21)

⚠ *If the upper film needs to be repositioned, separate it from the lower film with extreme care.*

- › Avoid any application of HXONE film on the window and body panel seals, any unpainted ABS plastics (trim strips, bumpers, rear-view mirror casings, etc.).
- › The first step is very important and here are some essential tips:
  - › Make the hinge as indicated above (cf. "First steps and application of HXONE film to flat surfaces", page 4) just above the door handles.
  - › Cut and remove the liner from the upper part.
  - › Stretch the film and apply it using a squeegee.
  - › Once the upper part is applied, remove the remaining liner from the lower part.

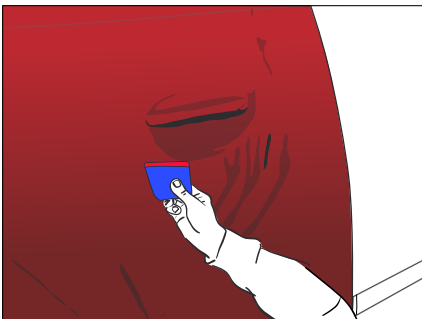


Figure 22

- › Stretch the film over the door handles and, using a squeegee, apply the film all around the door handles. (FIG. 22)

- › Once the door handles are done, stretch the film down to the bottom of the vehicle body. (FIG. 23)

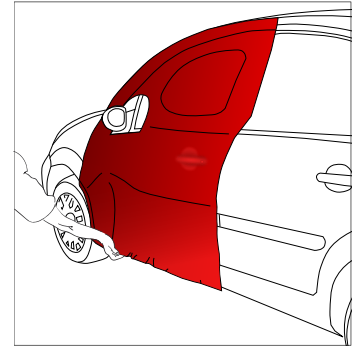


Figure 23

- › Do not hesitate to lift and stretch the film again in order to remove any folds. If necessary, heat to a temperature ranging from 40 °C to 50 °C (104 °F to 122 °F).
- › The film is stretched over the entire surface area to be wrapped. Now you can apply the film according to the type of surface.

## 6. CUTS AND FINISHINGS:

For whichever part to be wrapped, leave an overlap of vinyl with a minimum of 5 cm (1.97 in.). If there is a part adjacent to the part to be wrapped, apply a minimum of 5 cm (1.97 in.) of the vinyl on the adjacent part.

Then proceed with the cutting and finishing, depending on the different cases:

The cutter blade must never be perpendicular to the vehicle body in order to avoid scratching the paint.

### 6.1. Straight cut with overlap:

This method is to be used when the part to be wrapped and the adjacent part feature straight edges (FIG. 24). This concerns in particular the contours of head and tail lights, etc.

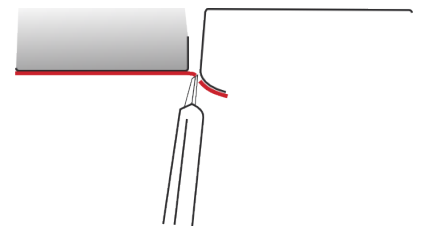


Figure 24

- › Wear gloves (SHAGGLOV).
- › Use a cutter with a new blade.
- › Trace the contours of the area with your (gloved) finger. (FIG. 25)



Figure 25

- › For the cut, the cutter blade must be placed against the edge of the adjacent part. When cutting, make sure you always go along the same line. (FIG. 26)

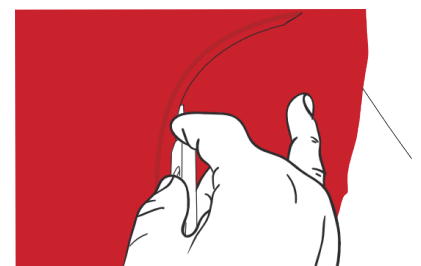


Figure 26



Figure 27

- › To finish, run the squeegee over the cut. (FIG. 27)

### 6.2. Straight cut without overlap:

This method is used for a cut along a seal.

- › Use a cutter with a new blade.

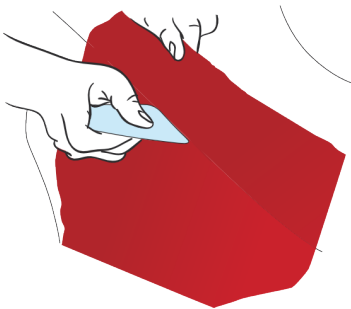


Figure 28

- › Trace the contours of the area with your finger. Lift the vinyl of the adjacent part and drag it into the hollow using a squeegee so as to mark the seal edge. (FIG. 28)

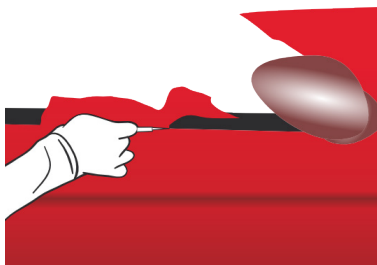


Figure 29

- › For the cut, the blade must be placed in a flat position, between the body and the seal, perpendicular to the seal. When cutting, make sure you always maintain this blade inclination. (FIG. 29)

- › Remove any excess film.
- › To finish, run the squeegee over the cut.

### 7. USE OF THE HEAT GUN:

You have used the heat gun for dry application to complex surfaces (concave, convex, riveted).

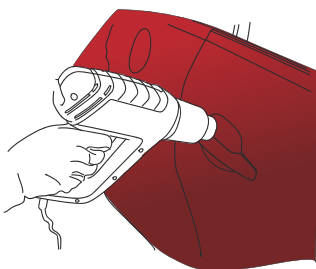


Figure 30

Once the application is finished, heat once more all the parts that have undergone severe deformation using the heat gun (FIG. 30). The heating temperature ranges from 80 °C to 90 °C (from 176 °F to 194 °F). Check it using the PISTLASER3 laser thermometer.

Heat accelerates the bonding process of the pressure-sensitive adhesive. In this way, the film will be definitively thermoformed.

## 8. FINISHING:

At the end of the application, leave the vehicle (or the wrapped component) in an environment with a temperature ranging from 15 °C to 25 °C (from 59 °F to 77 °F) and a relative humidity between 30 % and 70 % for at least 12 hours.

Finally check all areas where the film was cut. If the film peels off or undulates, apply strong pressure to the edges again using the squeegee.

## 9. EDGE SEALING TAPE OR VARNISH:

HEXIS recommend using RSSEAL sealing strips rather than sealing varnish when applying HXONE film to a vehicle (to avoid any risk of damaging the vehicle paint during removal).

However, in certain cases, such as the application of HXONE film to trains or heavy machinery, the VR7077 sealing varnish will be required to reinforce the film edges.

### 9.1. Edge sealing tape:

To enhance the adhesion of HXONE films to areas exposed to heavy wear such as door sills, wheel cages, etc., you can use RSSEAL strips for slightly curved surfaces.

- › Apply the strip by overlapping it by approximately 7 mm (¼ in.) over the body work and 7 mm (¼ in.) over the HXONE film. (FIG. 31)

*HEXIS tip: it is preferable to use sealing strips rather than the VR7077 sealing varnish for most applications.*

### 9.2. Edge sealing varnish:

The VR7077 sealing varnish must be applied only to reinforce the seal and adhesion of the edges of the HXONE films undergoing heavy external stress without modifying the adhesion properties of the films.

*HEXIS tip: it is preferable to use sealing strips rather than the VR7077 sealing varnish for most applications.*

Using VR7077 varnish is at the installer's own discretion.

- › Ensure that all surfaces are completely dry.
- › Apply 2 strips of masking tape.
  - 1 to the substrate at 5 mm (0.2 in.) from the HXONE film.
  - 1 to the HXONE film at 5 mm (0.2 in.) from its edge. (FIG. 32)
- › Apply the varnish with a brush in one single layer; wear gloves and protective goggles.
- › Remove the masking tape 15 minutes after application.
- › Drying time is variable depending on the thickness of the varnish coat and surrounding temperature: For a film with an average coat, optimal drying time is 24 hours. Any physical aggression (cleaning, abrasion, etc.) must be avoided by all means during that period of time.

 In all cases, avoid any contact between varnish and window seals.

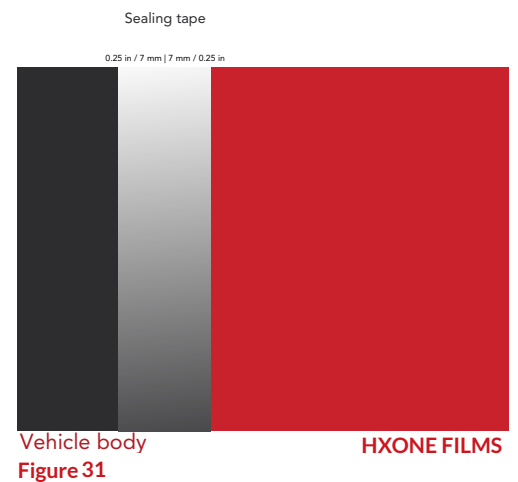


Figure 31

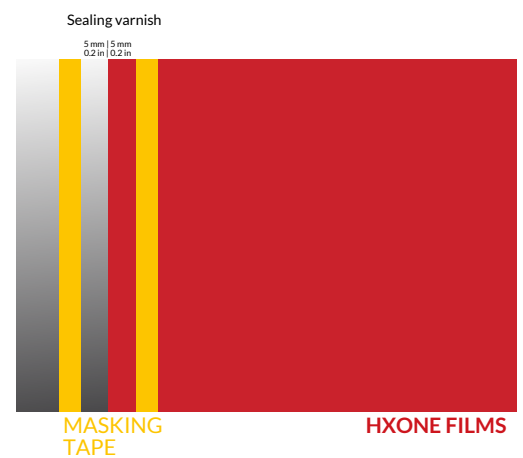


Figure 32


## 10. CLEANING AND MAINTENANCE OF THE HXONE FILMS:

For a complementary cleaning of the HXONE films, use the SHAGRELOAD product with a clean microfibre cloth.


- › Spray directly onto the surface to be cleaned ( $\pm$  40 cm x 40 cm/15 in. x 15 in.).
- › Wipe with a microfibre cloth before the product dries.


The cast HXONE film can be cleaned in any conventional automatic car wash, using cleaning products and detergents used for professional maintenance of vehicles and advertising equipment.

Nevertheless, exercise care when cleaning with high-pressure washers: apply medium water pressure at a minimum distance of 50 cm (20 in.) and a maximum water temperature of 35 °C (95 °F).

 *Do not wash the film within the first 48 hours following its application as this can affect the adhesion, which may result in the film peeling off.*

 *Solvents and corrosive detergents are forbidden.*

 *HEXIS are not liable for any adhesive films cleaned with unspecified additives from cleaning stations.*


 *Car washes: The additive products and the condition of the rotating brushes may impair the adhesion of the graphics or films. It is commonly admitted that after 10 car washes, the polyurethane paint becomes streaked; therefore, we are not accountable for these mechanical effects that may affect the film appearance.*

HEXIS tip: Always carry out a test on a small area before cleaning the entire covered surface.


## 11. REMOVAL PROCEDURE:


The HXONE films feature a permanent adhesive and therefore their removal could be difficult. Nevertheless, by following the instructions below, the removal will be relatively easy.

- › Using a heat gun, start from a corner and heat the film to a temperature of around 60 °C (122 °F) (use the laser thermometer).
- › Gently lift the corner with the cutter without damaging the substrate, and gradually remove the film, which has been heated; the film should form a 70- to 80-degree angle with the substrate.

 *A more or less wider angle will cause the film to break more easily.*

- › Always proceed gradually by heating small areas while carefully removing the film so as to limit the risk of leaving any adhesive on the substrate or tearing the film.
- › Continue to carefully heat and gently peel off the film until it is completely removed while keeping a watchful eye on the heat applied, on the pulling angle of the film, and the pulling speed.
- › If any adhesive remains on the substrate, take a cloth soaked with our SHAGREMOV product and rub the surface until all traces disappear.
- › Acetone may be used to ease the removal of the VR7077 sealing varnish.

 *Liquids may damage seals; therefore, take the necessary precautions before performing the clean-up.*

 *Before using any of our liquids, please refer to the technical data sheets available on our website at [www.hexis-graphics.com](http://www.hexis-graphics.com).*

For further technical information, please refer to the Technical Data Sheets available for free download from our website [www.hexis-graphics.com](http://www.hexis-graphics.com), on the "Professionals" pages.

Due to the great variety of substrates and the growing number of new applications, the installer must check the suitability of the medium for each application. All the published information does not however constitute a binding guarantee. The seller cannot be held liable for indirectly related damages and assumes no liability for claims that are higher than the replacement value of the purchased product. All specifications are subject to potential changes without prior notice. Our specifications are automatically updated on our website [www.hexis-graphics.com](http://www.hexis-graphics.com).

