

# PRODUCT BULLETIN

## APPLICATION AND REMOVAL HEX'Press Cast Vinyl Film



# CAST HX20000-HX30000

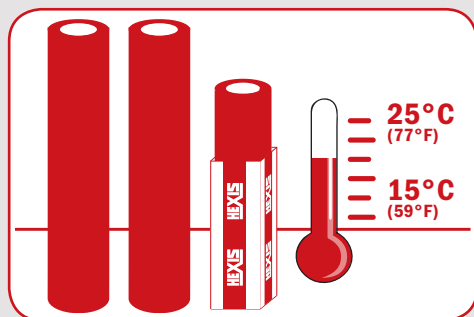
### ESSENTIAL ACCESSORIES

- › Tesa® 7476 adhesive tape
- › Masking tape
- › HEXIS'O surface cleaning agent
- › CLEAN HEXIS degreaser
- › ND45 strong cleaner and degreaser
- › SYSTEM 1 - 2 - 3 cleaning liquids
  - › 1 - REMOVER
  - › 2 - PRE-CLEANER
  - › 3 - FINAL CLEANER
- › Assorted squeegees. Use of the white MARVITRE squeegee without baize is preferred to apply the HX30CA890B film.
- › VR 7077 edge sealing varnish
- › Electric heat gun
- › MALCOV HEXIS toolbox
- › DECOLL'VIT adhesive remover

### ALWAYS STORE VINYL ROLLS AT RECOMMENDED CONDITIONS

Keep the film away from sources of heat (radiators, exposure to direct sunlight...): the ideal storage temperature is between 15 and 25°C (59 and 77°F). Store in an atmosphere with low humidity (30 to 70% relative humidity).

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



### CHARACTERISTICS

The HX20000-HX30000 consists of multilayered cast vinyl of 70 to 280 µm (depending on type) film and a HEX'PRESS technology liner. Due to the high technical performance and the conformability the product may be used on undulated or textured surfaces (weldings and rivets). It is specially designed for vehicle wraps.

The HX30CHSBRB, HX30CASBRB and HX30CAGBRB have a relative conformability. These products are intended for applications on flat and slightly curved surfaces. The combination of a highly conformable cast vinyl and the HEX'PRESS technology ensure that high quality results are achieved at a reduced installation time. The technology also allows repositioning of the vinyl on the substrate during application.

### PREPARING YOUR APPLICATION SURFACE

You can apply your HEXIS films on a wide variety of substrates, under the condition that these application surfaces are clean, dry, smooth, non-porous and with no traces of oil, grease, wax, silicone or other contaminating agents. To avoid any bad surprises, always assume that these surfaces are contaminated and must be cleaned. (cf. chapter 3). Do not forget to carry out a preliminary test on a small surface to check this substrate does not deteriorate.

### SUMMARY

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- 4.3 Concave surfaces
- 4.4 Convex surfaces
- 4.5 Riveted surfaces
- 4.6 Overlaps

#### 5. Application of graphic or vinyl HX20000-HX30000 (special features of references HX30CHSBRB, HX30CASBRB and HX30CAGBRB)

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- 5.2 Slightly undulating surfaces
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#### 7. Cuts and finishes

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#### 11. Film cleaning and maintenance

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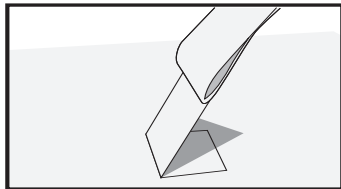
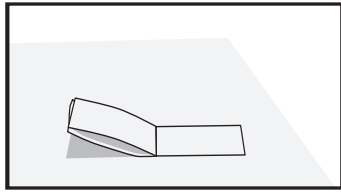
Application methods are based on the manufacturer's experience and are not restrictive. To ease application, comply with recommendations. HEXIS also offers training sessions to enable professionals to achieve optimum results.

## 1. RECOMMENDATIONS

- Avoid applying the adhesive film on unpainted side strips or bumper in a full wrap.
- The best adhesion of the Cast films is achieved after 24 hours of contact.

## 2. PRELIMINARY SURFACE TESTS

- Any fresh paint must be dried for at least 7 days at 25°C (77°F) to outgas completely. An outgassing test must be carried out before applying the film.
- Any old, dusty or flaky paint must be sanded down and restored before application and must undergo a tear off test.



(FIG 01)

### 2.1 Tear off test

With a TESA® 7476 adhesive tape, or an equivalent, apply on an area of 2.5cm x 5cm (1in x 2in) plus some leftover space to allow for fingers to hold it. Fold and quickly pull off perpendicularly to the surface. No trace should remain on the removed adhesive. Repeat this operation in several places. (FIG 01)

> On request, HEXIS can provide you with Tesa® adhesive tape in 2.5cm x 5cm (1in x 2in).

### 2.2 Outgassing test

Use a square of around 15cm x 15cm (6in x 6in) of adhesive polyester or of the film to apply. Wait 24 hours or 2 hours at 65°C (149°F). If any bubbles appear, this means the surface has insufficiently outgassed. This operation can be repeated after several days, or carry out the operation below.

### 2.3 Outgassing procedure by flaming

(polycarbonate, translucent or diffusing methacrylate, expanded PVC ...) consists of changing the surface tension of a substrate by swiping it with the flame of a gas burner. Have the flame swipe past quickly with a horizontal and vertical sweep over the whole surface of the substrate (use the flame's blue tip).

*Careful: never leave the flame on a set point for more than one second (risk of destroying the substrate). The film must be applied immediately as this light surface treatment disappears after a few minutes.*

⚠ HEXIS is not liable for any bubbles caused by outgassing.

## 3. CLEANING

Depending on the condition of the substrate, three cleaning possibilities are possible:

### 3.1 Clean surface appearance

General case:

Before applying the film on the substrate, we recommend you clean it with the gentle HEXIS'O solution. Dry with a clean and lint free cloth.

For full vehicle wraps:

In the case of a full wrap, it is recommended to use HEXIS PRE CLEANER (Product 2). Spray onto the surface. Leave to work for a few moments then remove with a clean cloth. Finish with a final clean with HEXIS FINAL CLEANER (Product 3).

### 3.2 Contaminated substrate:

General case:

Clean the substrate using a cloth soaked with CLEAN HEXIS de-greasing solvent and dry it with a cloth before evaporation.

For vehicle full wraps:

In the case of a total covering, use of HEXIS PRE CLEANER (Product 2) is recommended. Spray onto the dirty surface. Leave to work for a few moments, then wipe dry with a clean cloth. Carry out a final cleaning using HEXIS FINAL CLEANER (Product 3).

**HEXIS'O**  
cleaner and  
degreaser



**CLEAN HEXIS**  
cleaner and  
medium  
degreaser



**ND45**  
cleaner  
and strong  
degreaser



### 3.3 Heavily contaminated substrate:

Applies in the case where the substrate has been soiled by resistant pollutants such as diesel, tar or rubber stains.

#### General case:

Use a cloth soaked in the powerful HEXIS ND 45 cleaner. If necessary, precede this step by scraping the stain with a flexible, non-abrasive scraper.

In all cases, then wash the areas concerned with the HEXIS'O solution.

#### For vehicle full wrap:

In the case of a full wrap, it is recommended to use HEXIS REMOVER (Product 1).

- › Use in a ventilated area. Wear protective gloves and goggles.
- › Test a small, non-visible area for compatibility of the substrate before treatment. Certain plastic materials may be damaged by the REMOVER (Product 1) product.
- › Spray onto the dirty surface and spread out using a dry cloth.
- › Leave to work for a few moments. Spray again with REMOVER (Product 1), then wipe with a clean cloth or squeegee.
- › When the substrate is clean and dry, clean again with HEXIS PRE CLEANER (Product 2), then finish with HEXIS FINAL CLEANER (Product 3) (refer to use below).

### 3.4 Special case:

Remember to adapt the preparation methods according to the substrate type and condition.

The painted surfaces must be dry and hard, and the baked paints must be cooled down. Air-dried paints or car paints need to be dried for minimum 1 month before applying the film. For bare metallic surfaces, clean the substrate with soapy water and then with a cloth soaked in HEXIS'O solution (general cases) or with PRE CLEANER (Product 2) first and then FINAL CLEANER (Product 3) in the case of a full wrap.

*Consult the product safety data sheets before use .*

## 4. APPLICATION OF THE GRAPHICS OR THE HX20000-HX30000 VINYL (EXCLUDING REFERENCES HX30CHSBRB, HX30CASBRB AND HX30CAGBRB)

Because of its special HEX'PRESS liner the HX20000-HX30000 is always applied using the "dry" method. Before application of the HX20000-HX30000 on its own, ensure that all surfaces are clean (cf. paragraph 3) paying particular attention to critical areas such as corners and edges.

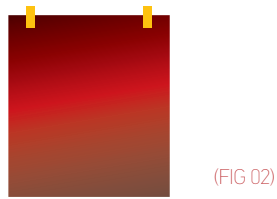
The ideal application temperature is between 15 and 25°C / 59 and 77°F (preferably between 20° and 25°C / 68 and 77°F) and must be respected equally for both the ambient and the substrate temperatures.

For the films of the HX30000 series the minimum application temperature is 18°C (64°F). Avoid applications in colder environments. Indeed, due to their specific structure these products tear easily in cold working conditions. The hygrometry may result in a less effective adhesion of the film on the substrate.

Matt colours and HX30CA000B carbon effect films (with the exception of HX30CA890B), tend to be marked easily (in particular squeegee marks). For this reason special attention should be paid to the application of matt films and in particular to the right angle of the squeegee. Should any traces remain after application they can be attenuated by slightly heating (max. 90 °C / 194 °F) the surface with a heat gun.

In the case of HX30CA890B, application with a glove will be facilitated if you slightly dampen the ends of the fingers.

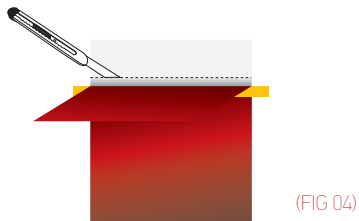
On certain structured surface effects (alligator, sequin, leather) the recurrence of the motive may give the impression of tiling in particular if the the product is installed on large surfaces.



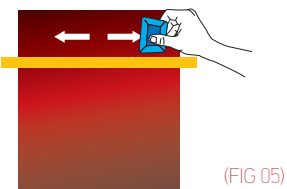
(FIG 02)



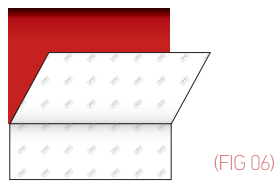
(FIG 03)



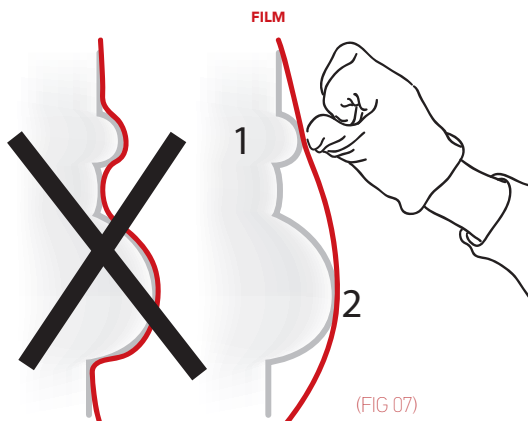
(FIG 04)



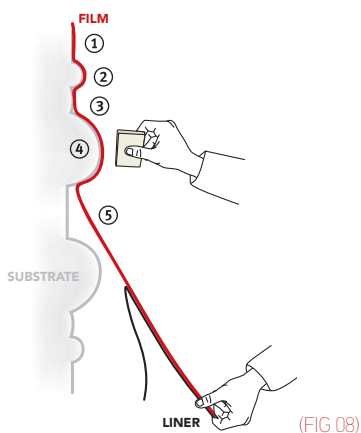
(FIG 05)



(FIG 06)



(FIG 07)



(FIG 08)

**⚠ Caution:** After a full wrap with heavy deformations, it is essential to reheat the deformation at 80 - 90°C (176 - 194°F) in order to ensure good adhesion of the vinyl over time. In the case of the HX30000 series with structured surface effects (carbon effect, alligator, sequin, leather...) the reheating must be carried out with utmost care (medium setting on the hot air gun, maintain sweeping movement of the hot air gun, increase the distance between the hot air gun and the surface of the film). Indeed, prolonged exposure to heat may lead to tears in the vinyl film.

**4.1. First steps and application of the HX20000-HX30000 on flat surfaces**

- › Wear cotton gloves (available in toolbox)
- › Position the graphic on the surface (FIG 02)
- › With the help of masking tape or magnets, make a horizontal hinge on the top part, preferably on a flat surface. (FIG 03)
- › Pull off 10cm (4in) of liner (FIG 04) and start applying the vinyl with a squeegee (covered with felt beforehand) making a 45° angle and applying from the centre to the edges. (FIG 05)
- › Then take off the hinge to continue removing the liner, depending on the surfaces (cf. following paragraphs). (FIG 06)
- › When applying on flat surfaces, press down hard over the entire surface, insisting on the edges.

**4.2 Undulated surfaces**

Having complete step 4.1, you may come across small or large undulations for which the application process will be different.

**4.2.1 Small undulations: "stretched application" (FIG 07)**

- › Remove all the liner
- › Stretch the vinyl onto the substrate so it touches the raised parts. (FIG 07 1 AND 2)
- › Apply the raised part with a finger or the squeegee.
- › Heat the stretched spaces between 40 and 50°C (104 and 122°F) (between 30°C and 40°C / 86 to 104°F for HX30CA890B)
- › While heating, run your thumb down the hollow part of the undulation on both sides to press down the adhesive.
- › Without heating, wipe the squeegee on the part between the two undulations from the centre to the edges.
- › Now proceed with the cuts if your undulated substrate has several parts.
- › Once you have finished, reheat all the parts which underwent heavy deformation between 80° and 90°C (176 and 194°F) to thermoform the product definitively.

**4.2.2 Large undulations: "extended application" (FIG 08)**

- › Slowly remove the liner while pulling downwards
- › Apply the film with the thumb or a squeegee by wiping down horizontally into the hollow part of the undulation.
- › Start applying the hollow part (1) then the raised part (2) then the hollow part (3).
- › Go up to the following undulation (4) and then continue (5).
- › As the film was not stretched permanently, it is not necessary to reheat to 80°C (176°F).

Caution: in the concave areas HEX'PRESS adhesive technology requires appropriate pressure in order to completely drive out any air that may remain in the micro-channels as any air that has not egressed and may not be visible may later result in the film lifting off the substrate.

**4.3 Concave surfaces**

When step 4.1 is finished, proceed as follows:

- › Pull off the whole liner (FIG 09)
- › Stretch the vinyl on the substrate so it touches the raised parts.
- › Apply the raised part with a finger or a felt-covered plastic squeegee (FIG 10).
- › Heat between 40° and 50°C (104 and 122°F) (between 30°C and 40°C / 86 to 104°F for HX30CA890B) and lower your thumb in the hollow part so as to press down the adhesive (FIG 11).

Caution: HEX'PRESS adhesive technology makes the film repositionable during application and allows easy elimination of air bubbles. However, particularly in

concave areas HEX'PRESS adhesive technology requires appropriate pressure in order to completely drive out any air that may remain in the micro-channels as any air that has not egressed and may not be visible may later result in the film lifting off the substrate. HEXIS recommends you pay particular attention to the application of HEX'PRESS media in concave areas.

➤ Once this step is completed, reheat all the hollow parts which underwent heavy deformation between 80° and 90°C (176 and 194°F) to thermoform the product definitively (FIG 12).

#### 4.4 Convex surfaces

When step 4.1 is finished, proceed as follows:

- Remove the liner
- Heat the vinyl (FIG 13) between 40° and 50°C (104 and 122°F) (between 30 and 40°C / 86 to 104°F for HX30CA890B), then stretch it to wrap the convex surface (FIG 14).
- Apply the vinyl over the whole surface using a plastic felt-covered squeegee, making sure to gently brush it on the convex area (FIG 15) to eliminate all tensions and folds.
- If necessary, lift off, re-stretch the film and reapply (FIG 16).
- After this operation, heat to between 40 and 50°C (104 and 122°F) (between 30 °C and 40 °C / 86 to 104°F for HX30CA890B) (FIG 17) and stretch to eliminate all creases using the squeegee.
- Cut if necessary and reheat all the edges to 80° to 90°C (176 to 194°F).
- The application is finished (FIG 18).

**⚠ Caution:** exercise particular care when heating the stretched HX30000 films (FIG 13) (FIG 17). The hot air gun must never be held at a right angle to the surface of the film. It should be inclined so as to heat a larger surface area. Keep the hot air gun moving all the time. Do not heat a reduced surface area over prolonged time.

#### 4.5 Riveted surfaces

When step 4.1 is finished, proceed as follows:

- When you encounter a rivet and the vinyl is stretched, heat a little between 40° and 50°C (104 and 122°F) (between 30 and 40°C / 86 to 104°F for HX30CA890B)
- Work around the rivet with the squeegee (FIG 19) or the thumb and prick the rivet 2 or 3 times with a needle allowing the air to exit.
- Then heat each rivet again at around 80°- 90°C (176 to 194°F). (FIG 20).

#### 4.5 Overlaps

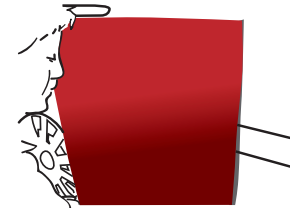
If two parts of film need to overlap, it is important to comply with the following instructions in order to achieve optimum adhesion of one film on the other:

- Clean the lower film with the help of a microfibre cloth soaked in HEXIS FINAL CLEANER (Product 3). Leave to dry.
- 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).

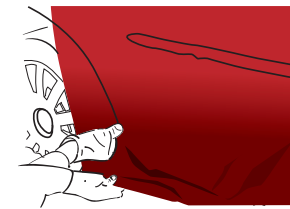
### 5. APPLICATION OF GRAPHIC OR VINYL (SPECIAL FEATURES OF REFERENCES HX30CHSBRB, HX30CASBRB AND HX30CAGBRB)

The HX30CASBRB and HX30CAGBRB are relatively conformable. These products may be used on flat and slightly complex surfaces. In order to retain the gloss/chromed appearance of these products, the film must be deformed by less than 10%. Large surfaces must be heated carefully (never concentrate the airflow onto a small area, as this will affect the gloss of the film).

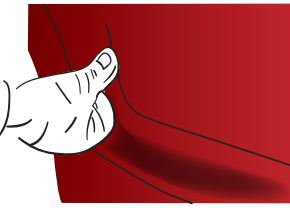
The HX30CHSBRB (silver mirror) is a technical product requiring special attention during application:



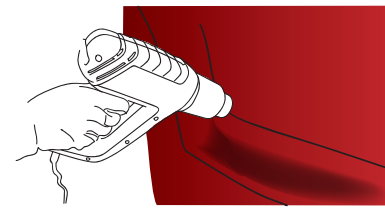
(FIG 09)



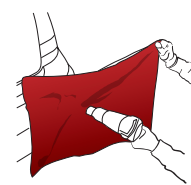
(FIG 10)



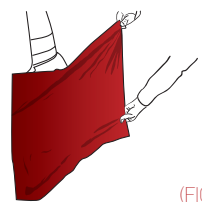
(FIG 11)



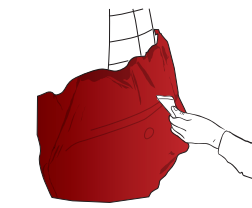
(FIG 12)



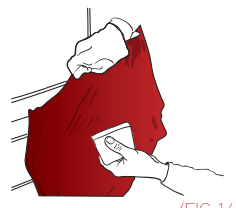
(FIG 13)



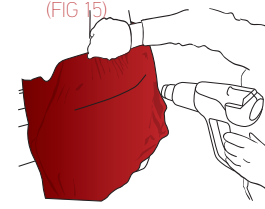
(FIG 14)



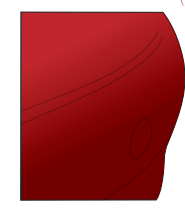
(FIG 15)



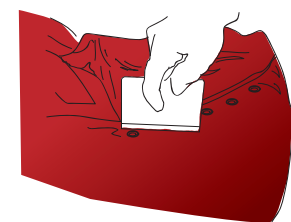
(FIG 16)



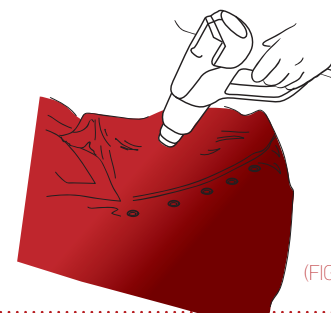
(FIG 17)



(FIG 18)



(FIG 19)



(FIG 20)



- › Take care when manipulating the film: do not fold the film while it is still in contact with its liner. A fold could make slight marks on the film, which cannot be removed later. Once peeled off from the liner, the film may be folded without risk of damage.
- › HX30CHSBRB is more rigid than the other products in the HX30000 range and therefore requires more force to obtain the same deformation. Two operators and a longer application time than for other products in the HX30000 range may be required for covering large parts.
- › Be careful not to exceed the limits of the product: HX30CHSBRB may be subject to a slight and irreversible alteration to its appearance (fading, dulling) if the film is stretched/deformed beyond its limits.
- › Due to its mirror appearance, HX30CHSBRB rapidly stores and retains heat. The rise in film temperature during application with a heat gun is more rapid and long lasting than for other products in the HX30000 range. This behavior must be taken into account during application. Take care not to get burnt by touching the film.

For application on complex surfaces, it will be necessary to work in zones. Overlap 3 millimeters of the material (neither more nor less) between two adjacent parts and trim. To avoid marking the film surface, any excess material must be immediately removed after application and trimming.

### 5.1 Start-up and application of HX30000 onto flat surfaces

Refer to paragraph 4.1.

### 5.2 Slightly undulating surfaces (FIG 8):

Once step 5.1 is complete, proceed with the application as follows:

- › Progressively remove the liner maintaining the tension downwards.
- › Lay the vinyl over the substrate so that it touches the parts in relief.
- › Apply the film with your thumb or a squeegee, descending horizontally in the hollow of the undulation.
- › Start application at the hollow 1 then relief 2, then hollow 3.
- › Press upwards on the next undulation 4 then continue.
- › As the film has not been deformed, heating to 80°C (176°F) is not necessary.

### 5.3 Slightly concave surfaces

Once step 5.1 is complete, proceed as follows:

- › Remove the entire liner.
- › Lay the vinyl over the substrate so that it touches the parts in relief.
- › Apply onto the raised area with your finger or a felt covered plastic squeegee
- › Heat to between 40 and 50°C (104 and 122°F) and press downwards in the hollow with your thumb so that the adhesive makes contact with the surface.
- › Once the work is completed, gently reheat all the hollow parts that have been significantly deformed to 80°C - 90°C (176 - 194°F) to definitively thermoform the product.

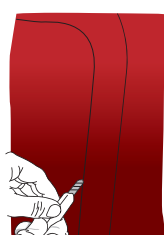
If the parts are excessively concave, we recommend you make the appropriate cuts as follows:

- › Put on a glove and apply lightly the parts in the raised areas. (FIG 21)
- › Using the cutter, make a cut on one of the sides of the concave part. (FIG 22) (be careful not to scratch the substrate under the vinyl)
- › Heat the uncut hollow part to between 40°C and 50°C (104 to 122°F) and press downwards with your finger so that the adhesive makes contact with the surface. (FIG 23)

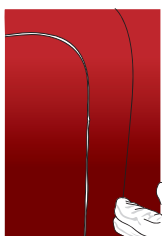
TIP! › So that the substrate is not visible at the cut (FIG 24), you can apply a strip of vinyl on the concave part of the substrate where you will make the cut. Thus, when you apply the film and make the cut, the overlap of the vinyl will conceal the substrate. Cut and remove the surplus material immediately after application.



(FIG 21)



(FIG 22)



(FIG 23)



(FIG 24)

### 5.4 Slightly convex surfaces

Once step 5.1 is complete, proceed as follows:

- › Remove the liner.
- › Heat the vinyl to between 40°C and 50°C (104 to 122°F) then stretch it over the slightly convex surface.
- › Apply the vinyl over the entire surface using a baize covered plastic squeegee, taking care to gently smooth the convex area to disperse the pulls and creases.
- › If necessary, remove, stretch the film, and re-apply it.
- › After this operation, heat and stretch to eliminate creases and apply with the squeegee.
- › Trim if necessary and re-heat the edges to 80-90°C (176 - 194°F).

If the parts are excessively convex, we recommend you make the appropriate cuts as follows:

Example on the bottom part of a front or rear bumper of a vehicle

- › Heat the vinyl to between 40°C and 50°C (104 to 122°F). (FIG 25)
- › Stretch the vinyl over the flat surface. (FIG 26)
- › Using the cutter, cut vertical strips in the vinyl. (FIG 27)
- › Apply one strip after the other using the squeegee taking care to overlap the vinyl correctly and without creases. (FIG 28)
- › Once the convex part is applied, allow to cool and then trim.

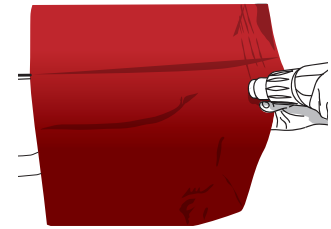
### 5.5 Overlaps

If two parts of film 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 with the help of a microfibre cloth soaked in HEXIS FINAL CLEANER (Product 3). Leave to dry.
- › 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).

### 6. FULL WRAPS

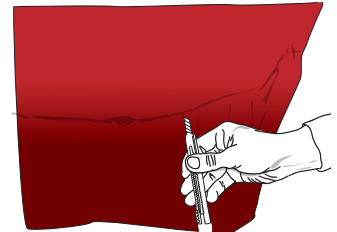
- › For cars, application on the window sealing gaskets and the body joints is prohibited.
- › The necessary horizontal application in certain cases such as hoods or roofs can result, over time, in a slight fading of colour or gloss compared to the vertically visible parts. In regards to the product's durability, Hexis is in no way liable for the parts which are most exposed to sunlight or severe climatic changes.
- › If an overlap is necessary, HEXIS recommends it to be done over 1cm (0.4in) with:
  - › Horizontal overlapping with HX20000-HX30000. The upper part of the film (above) is applied on the lower part of the film (below). (Roof tile principle)
  - › Vertical overlapping of HX20000-HX30000. On a mobile surface, assuming you always apply the film starting from the back of the vehicle and moving to the front, then the overlapping will be done in the same way (FIG 29).
- › In the case of a full vehicle wrap avoid the application of HX20000-HX30000 on unpainted side strips or bumpers.
- › The first steps are the most important and here is some essential advice:
  - › Make a horizontal hinge as indicated above (cf. 4.1) just above the door handles.
  - › Cut and remove the liner on the upper part.
  - › Tension the film and apply with the help of a squeegee.
  - › Once the upper part is applied, remove the remaining liner on the lower part.
  - › Tension the film over the door handles and with a squeegee apply the film along the contours of the door handles. Once the door handles are done, tension the film down to the bottom of the vehicle body. (FIG 30)



(FIG 25)



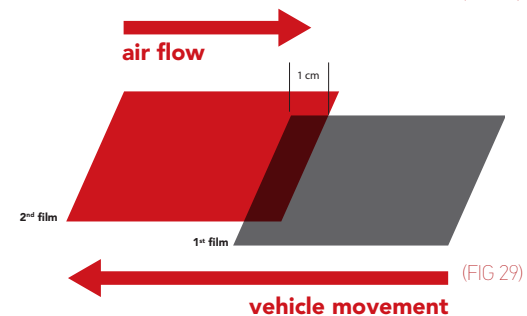
(FIG 26)



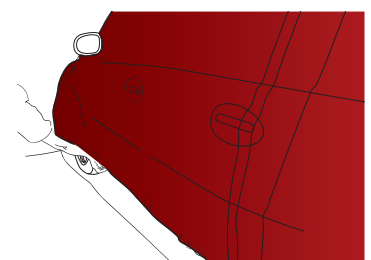
(FIG 27)



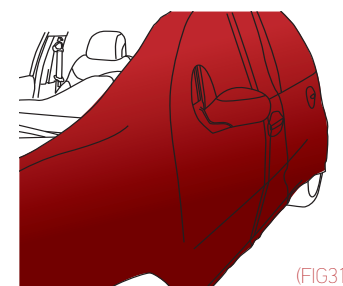
(FIG 28)



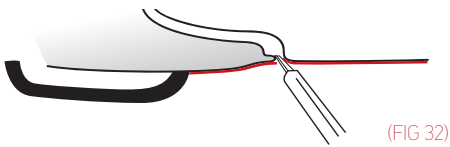
(FIG 29)



(FIG 30)



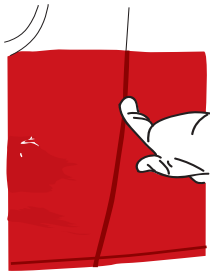
(FIG 31)



(FIG 32)

› Do not hesitate to lift the film off again and to stretch it again so as to remove any folds. If necessary heat to between 40 and 50°C (104 and 122°F), between 30 °C and 40 °C (86 to 104°F) for HX30CA890B.

› The film is now stretched over the total surface area to be wrapped. You can apply the film (FIG 31) according to the type of surface.



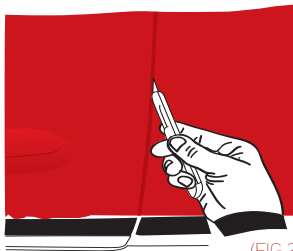
(FIG 33)

## 7. CUTS AND FINISHINGS

Regardless the part recovered, leave an overlap of vinyl with a minimum of 5cm. If there is a part adjacent to the part to recover, apply the vinyl along a minimum of 5cm of the adjacent part.

In the case of the HX30CHSBRB, reduce the overlap as much as possible (3 mm). So as to avoid marks on the surface of the film, proceed with the finishing cuts and the removal of the excess material as quickly as possible.

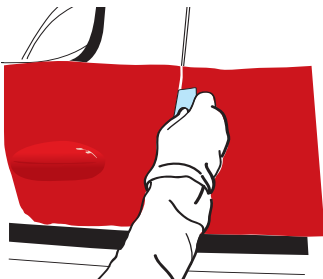
Then proceed with the cut and finishing depending on the different cases: the cutter blade must never be perpendicular to the vehicle body to avoid scratching the paint.



(FIG 34)

### 7.1 Slanting cuts:

This cutting method should be applied if the recovered part has a thin border and the adjacent part has a straight and wide edge (FIG 32). This is nearly always the case with car doors and hoods ...



(FIG 35)

- › Put on gloves (available in the Malcov toolbox).
- › Use the cutter with a new blade.
- › Shape the contours of the part using a gloved hand. (FIG 33)
- › When cutting, the blade must be placed against the thin edge of the part to cover. The cutter must always be slanting outward. (FIG 34)
- › Finish off by running the squeegee all along the thin edge of the cut. (FIG 35)

### 7.2 Straight cut with overlap:

This method is to be used when the part to cover and the adjacent part have straight edges. (FIG 36) This is often found with contours of traffic lights.



(FIG 36)

- › Put on gloves (available in Malcov toolbox).
- › Use the cutter with a new blade.
- › Shape the contours of the part using a gloved hand.
- › For the cut, the cutter blade must be placed against the edge of the adjacent part. When cutting, make sure you always continue along the same line as the cut (FIG 37)
- › Finish off by running the squeegee over the cut. (FIG 38)

### 7.3 Straight cut without overlap:

This method is used for a cut along a joint.

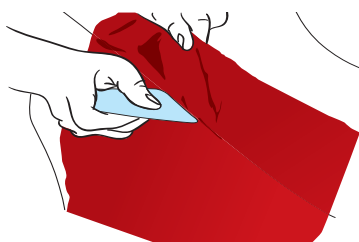


(FIG 37)

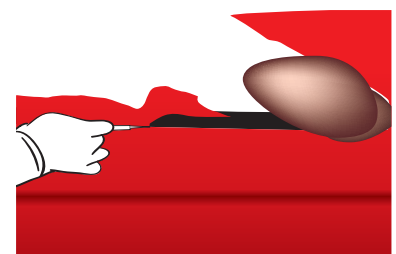
- › Use the cutter with a fresh blade.
- › Shape the contours of the part. Remove the vinyl of the adjacent part and drag it into the hollow using a squeegee so as to shape the joint edge.(FIG 39)
- › For the cut, the blade must be placed in a flat position, between the body and the joint, and perpendicular to the joint. When cutting, have the blade run carefully along in the same direction. (FIG 40)
- › Remove surplus vinyl.
- › Finish off by running the squeegee over the cut.



(FIG 38)



(FIG 39)



(FIG 40)

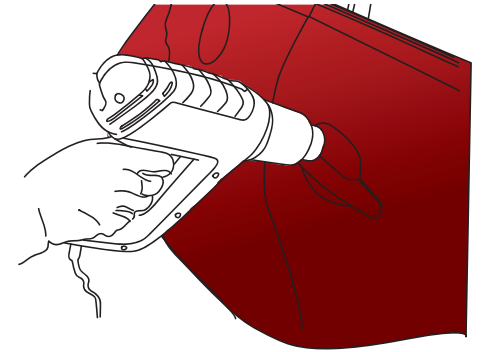


## 8. USING THE HEAT GUN

You just used the heat gun for the dry procedure method for complex surfaces (concave, convex and riveted).

The application finished, reheat using the heat gun all the parts which underwent severe warping (FIG 41). The heating temperature must be between 80 and 90°C (176 and 194°F). Check with the help of a laser thermometer (included in the MALCOV HEXIS). The temperature check with the laser thermometer must be carried out on the surface of the film. Be careful and avoid checking the temperature of the airflow coming from the hot air gun. This would give false measurements and could lead to insufficient re-heating (risk of film peeling off).

This heat allows for acceleration in the gluing process of the adhesive which is sensitive to the pressure. In this way, the vinyl will be definitively thermoformed.



(FIG 41)

**⚠ Caution:** In the case of the HX30000 series with structured surface effects (carbon effect, alligator, sequin, leather...) the reheating must be carried out with utmost care (medium setting on the hot air gun, maintain sweeping movement of the hot air gun, increase the distance between the hot air gun and the surface of the film). Indeed, prolonged exposure to heat may lead to in tears in the vinyl film.

Due to its mirror appearance, HX30CHSBRB rapidly stores and retains heat. The rise in film temperature during application with a heat gun is more rapid and long lasting than for other products in the HX30000 range. This behavior must be taken into account during application. Take care not to get burnt by touching the film.

## 9. FINISHING

At the end of the application leave the vehicle (or the covered object) in an environment with a temperature between 15 and 25 °C (59 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 wrinkles reapply the edges under strong pressure with the help of a squeegee.

In order to achieve a perfect mirror aspect with the HX30CHSBRB film, we recommend that you complete the application work by cleaning the film's surface with ECLAT'MAX. To ensure a good film adhesion, a period of 24 hours should be observed before starting this final cleaning. Use a microfiber cloth and rub gently.

## 10. SEALING VARNISH

HEXIS does not recommend using a sealing varnish for a HX20000-HX30000 film application on vehicles (to avoid any risks of damaging the body). But in certain cases, such as a HX20000-HX30000 film application on trains or construction site machines, the VR7077 sealing varnish is necessary to reinforce the film borders.

- Make sure the surfaces are dry
- Apply 2 pieces of masking tape  
1 on the substrate at 5mm (0.2in) from the HX20000-HX30000  
1 on the HX20000-HX30000 at 5mm (0.2in) from the edge (FIG 42)
- After having put on safety gloves and glasses, apply the varnish in one layer using a paintbrush
- Remove the masking tape 15 minutes after application
- Drying time is variable depending on the thickness of the varnish applied and the ambient temperature. For a film applied with a normal coating, the optimal drying time is 24 hours. Any physical strains (cleaning, abrasion ...) should be prohibited during this time.

**⚠** There must not be any contact between the varnish and the window seals.



(FIG 42)

## 11. CLEANING AND FILM MAINTENANCE

The Cast HX20000-HX30000 film may be cleaned by any conventional automatic cleaning methods, with cleaning products and detergents used in the framework of professional maintenance for vehicles and promotional equipment. Nevertheless be careful when cleaning. Use an average pressure at a distance of at least 50cm (20in) and a water temperature of 35°C (95°F) maximum.

Due to their particular structure certain films in this range (structured effects, matt and super-matt films) may show dirt to a larger extent than gloss PVC films. This type of film may require more frequent and/or longer cleaning. Cleaning of these films may be difficult if they are exposed to particularly dirty environments (e.g. racing cars, rallye cars etc.).

For the cleaning and maintenance of smooth and gloss films, you may also use PROTECH LASER WASH, distributed by HEXIS :


- › Spray directly onto the surface (± 40 cm x 40 cm/16in x 16in).
- › Wipe with a microfiber cloth before the product dries.


To extend and reinforce the shine of smooth and gloss films, we recommend you use PROTECH ECLAT MAX, distributed by HEXIS.


- › Spray directly onto the surface (± 40 cm x 40 cm/16in x 16in).

Wipe with a microfiber cloth before the product dries.



 *Caution: the film should not be cleaned in the 5 days following the application at the risk of altering its adhesion which might result in the film lifting off.*

 *Caution: corrosive agents and detergents are prohibited. HEXIS is not liable for any adhesive films cleaned with the unspecified additives from cleaning stations.*


 *Car washes: the added products and the condition of the rotating brushes can harm the appearance of the graphics or films. It is a fact that after 10 car washes, the polyurethane paint becomes streaked, so consequently and in the same way, these mechanical effects can alter the vinyl aspect which frees us from any responsibility.*

*HEXIS tip: always be sure to test a small surface before proceeding with the cleaning of your overlapping.*


## 12. REMOVAL PROCEDURE


The HX20000-HX30000 film is equipped with a permanent adhesive and for this reason its removal needs some attention. Nevertheless, by following the instructions below, the removal will be relatively easy.

- › Using a heat gun, start from one corner and heat the film at a temperature around 60°C (140°F) (use the laser thermometer).
- › Pull up the corner using a cutter – available in the toolbox – without damaging the substrate and slowly lifting the heated parts. Continue pulling the film at a 70° to 80° angle compared to the substrate.

 *If the angle is too wide or acute, there is a risk of the film cracking.*

- › Always work on small heated areas by gently pulling up the film to decrease the risks of leaving adhesive on the substrate or of tearing the vinyl.
- › Continue heating and gently pulling off the film until there is none left. Always be aware of the active heat, the tearing angle and the tearing speed.
- › If some adhesive remains on the substrate, take a cloth soaked in our DECOLL'VIT product and rub the substrate until all traces disappear.
- › To facilitate removing the VR7077 sealing agent, it is possible to use acetone.

 *Caution: never put the liquids in contact with the window or body sealing gaskets.*

 *Before using any of our liquids, please consult our technical data sheets on our Website at: [www.hexisgroup.com](http://www.hexisgroup.com)*



For further information of a technical nature, refer to to Technical Data Sheets available for download from our website [www.hexisgroup.com](http://www.hexisgroup.com) under professionals/data sheets.

*The great diversity of media and the ever growing number of possible applications commit the user to ensure that the product is suitable for each particular usage.*

*The information given does not constitute a warranty. The seller assumes no liability for claims or damages beyond the replacement value of a product. Specifications are subject to changes without notice. Updates to specifications can be found on our website [www.hexisgroup.com](http://www.hexisgroup.com).*



[www.hexisgroup.com](http://www.hexisgroup.com)

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