

PRODUCT BULLETIN

APPLICATION AND REMOVAL METHOD Polymeric TAKE HEAT EASY Vinyl Film



THE200EVO FILM

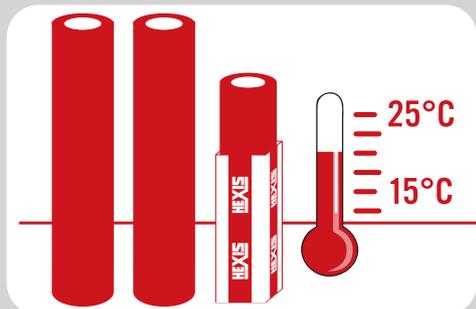
REQUIRED ACCESSORIES

- › Adhesive tape Tesa® 7476
- › Masking tape
- › Liquids for the cleaning of application surfaces:
 - › SHAGREMOV
 - › SHAGCLEAN
- › ProTech® SHAMPCAR or SHAMCARV2 car body shampoo
- › Liquid for an easier application: MAGICSPRAY
- › Squeegees of your choice from the catalogue
- › PC500, V850 or V750 laminate (flat surface) or VCR750 (for protecting UV printings)
- › VR7077 sealing varnish
- › Different HEXIS application tools
- › ProTech® cleaning agents

STORE YOUR FILMS UNDER APPROPRIATE CONDITIONS

Keep the films away from all major sources of heat (radiators and heaters, direct exposure to sunlight, etc.): the ideal 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 your 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. Comply with instructions to ease application of HEXIS films. HEXIS also offer training sessions for beginners and professionals to achieve optimum results.

FEATURES

THE200EVO film consists of a 70-µm PVC, which is perfectly suitable for slightly complex surfaces and adheres particularly well to glass, steel, aluminium, PVC and melamine. Its technical performance and flexibility allow you to apply this vinyl to flat or slightly convex (2D) surfaces requiring a certain conformability: panels, shop windows, vehicles.

The combination of polymeric vinyl and advanced TAKE HEAT EASY™ technology allows you to obtain high quality results while reducing the time required for application. Due to its extra low tack, the TAKE HEAT EASY™ technology allows for a very easy repositioning of the vinyl on the substrate during application, while not excluding the squeegeeing step for optimal adhesion of the film to the substrate.

THE200EVO film features an adhesive, which provides ease of application and optimum installation comfort at a temperature exceeding 20 °C (68 °F).

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 (see chapter CLEANING: page 3).

Do not forget to carry out a preliminary trial on a small surface to check if the substrate is compatible.

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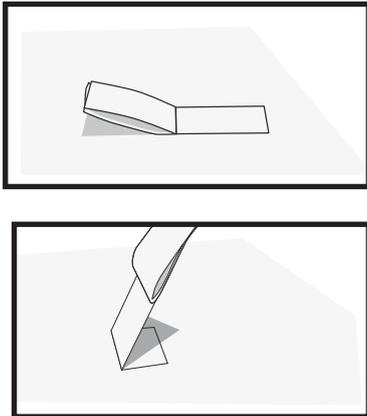
1. RECOMMENDATIONS:

- › THE200EVO film adheres particularly well to glass, steel, aluminium, PVC and melamine.
- › THE200EVO film has a weaker adherence to the following substrates: low energy (polyethylene, polypropylene, etc.), grained or textured substrates or those coated with acrylic paint.
- › In the case of a vehicle wrap, avoid applying THE200EVO film to unpainted components such as trims or unpainted bumpers.
- › For any other substrate, preliminary tests must be carried out.
- › The best adhesion of THE200EVO film is achieved after 24 hours of contact.

2. PRELIMINARY TEST OF THE APPLICATION SURFACES:

- › Any fresh 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.

2.1. Tear-off test:



Using a TESA® 7476 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 tear it off with one quick pull perpendicular to the substrate surface. No traces should remain on the ripped-off adhesive tape. Repeat this process in several places.

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

2.2. Degassing test:

(For verification) Use a square 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 at ambient temperature or 2 hours at 65 °C (149 °F). The appearance of bubbles indicates that the substrate has not sufficiently degassed. Therefore, this process should be repeated after a couple of days; or the procedure described below should be carried out.

2.3. 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 (YOU RISK DESTROYING THE SUBSTRATE IF A FIXED POINT IS HEATED FOR MORE THAN A SECOND).

The film must be applied right after this treatment 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 required before performing the 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.

3.1. Clean and soiled surface appearance:

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

Shampcar / ShampcarV2
Concentrated vehicle
shampoo



3.2. Heavily soiled surface appearance:

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

SHAGREMOV
Powerful cleaning
agent



 Use the SHAGREMOV product in a ventilated area. Wear protective gloves and goggles.

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

- › Spray the SHAGREMOV product on the dirty surface and spread it out 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.

SHAGCLEAN
Cleaning and
degreasing finishing
agent



3.3. Special case:

Remember 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.

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

4. LAMINATING THE FILM:

We recommend you laminate THE200EVO film with one of these laminating films: PC500, V850, V750 or VCR750.

The combination of THE200EVO film with the V750 or V850 laminate only applies to flat surfaces. The VCR750 laminate is intended for protecting the UV printed THE200EVO film.

Ensure that the film is dry before application.

The printed THE200EVO film is touch-dry at 10 minutes maximum following application, but it is recommended to leave a drying time of at least 24 hours before laminating, cutting or applying it.

- › To ensure that the solvents evaporate completely, leave the printed films stacked in sheet racks in a ventilated room to dry.

5. APPLYING THE200EVO FILM:

Due to its liner, it is mandatory to apply the film using the so-called «dry» application method with THE200EVO film, laminated or not. THE200EVO film is intended to be applied to flat, slightly undulated or slightly complex (2D) surfaces: convex surfaces up to 5 % of deformation.

The TAKE HEAT EASY™ technology of THE200EVO film allows for easy repositioning of the vinyl on the substrate during application.

However, THE200EVO film 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 THE200EVO complex, laminated or not, make sure that all surfaces are clean.

Application temperature:

Recommended application temperature ranges from +20 °C to +25 °C (+68 °F to +77 °F).

Both the ambient and the substrate temperature must comply with the application temperature. Hygrometry may also influence the adhesion of the film to the substrate.

5.1. First steps and application of THE200EVO film to flat surfaces:

- › Wear gloves (GANTSCOV).

- › Position the printed film on the target surface and tape it into place without stretching it. (FIG. 01)



Figure 01

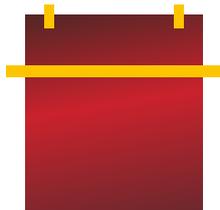


Figure 02

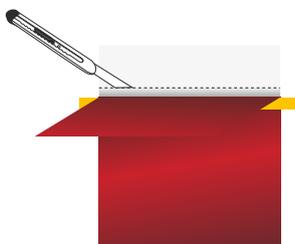


Figure 03

- › Peel off 10 cm (4 in.) of the liner. (FIG. 03)

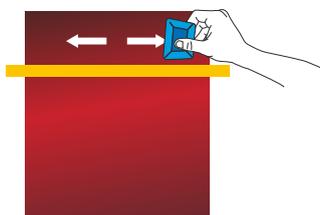


Figure 04

- › Start applying the vinyl with a squeegee (previously covered with felt), by forming a 45-degree angle with the substrate and working from the centre towards the edges. (FIG. 04)

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. 05)

- › During application to flat surfaces, squeegee the entire surface while removing the liner steadily, firmly pressing on the edges and corners.

5.2. Slightly undulated surfaces:

When step 5.1 is finished, proceed as follows while using the extended application method: (FIG. 06)

- › Gradually remove the liner while pulling it downward without stretching the film.
- › Apply the film horizontally with your thumb or a squeegee by progressing slowly into the hollow of the undulation.
- › Start by applying the slight hollow ①, then the peak ② and finally the hollow ③.
- › Go onto the following undulation ④, then continue in the same way.

HEXIS tip: For a 3D surface, use one of the cast films of the HX100 or THE190EVO range.

! In the hollow parts, THE200EVO film requires sufficient pressure in order to completely expel any air that could remain in the micro-channels. This is because the air that has not been evacuated and that is not visible to the eye may later result in the film peeling off from its substrate or in the appearance of bubbles.

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.

5.3. Slightly convex (2D) surfaces:

When step 5.1 is finished, proceed as follows:

Caution: The deformation of the convex surface to be covered must be lower than 5 %.

- › Remove the liner.
- › Apply the vinyl over the whole surface using a felt-covered, plastic squeegee, and carefully wipe over the convex area to smooth the film and eliminate any tensions.
- › If necessary, lift the film, stretch it again, completely wrap the convex surface and apply it.
- › The application is complete.

HEXIS tip: For strongly convex surfaces, use one of the cast films of the HX100 or THE190EVO range.

! The TAKE HEAT EASY™ technology allows for a very easy repositioning of the film during its application to the substrate as well as easy air evacuation. However, particularly in concave areas, the TAKE HEAT EASY™ technology requires sufficient pressure in order to completely expel any air that could remain in the micro-channels. The air that has not been evacuated and that is not visible to the human eye may later result in the film peeling off from its substrate. HEXIS recommend you pay particular attention to the application of THE200EVO film to concave areas.

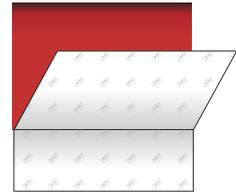


Figure 05

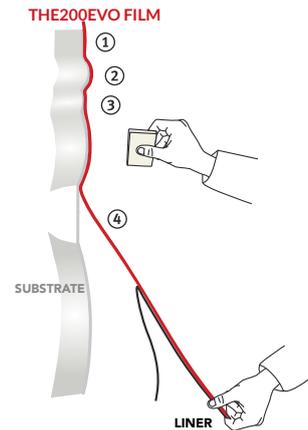


Figure 06

5.4. Additional information for a full vehicle wrap:

- › For vehicles, the application of film to window and body panel seals must be avoided by all means.
- › Whenever a horizontal application is necessary, such as on engine hoods or roofs, a slight fading of colour and gloss may develop over time compared to vertically exposed 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:

- Horizontal overlapping: application is always carried out from the bottom up; the upper film will overlap the lower film (tiling principle).
- Vertical overlapping on a mobile surface: application is always carried out from back to front of the vehicle; the second film will overlap the first one, etc. (FIG. 07)

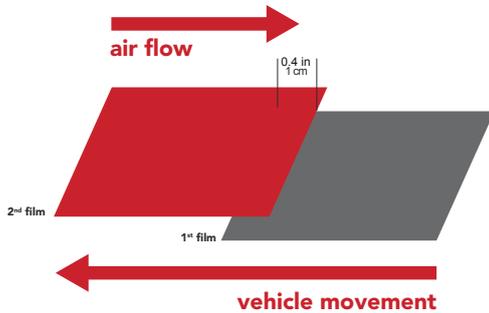


Figure 07

- › Avoid applying THE200EVO film to unpainted components such as trims or unpainted bumpers.

If any areas turn out to be too convex, we recommend you to use a cast film of the HX100 or THE190EVO range.

6. EDGE SEALING TAPE OR VARNISH:

HEXIS recommend using PC190G2 sealing strips rather than sealing varnish when applying THE200EVO film to a vehicle (to avoid any risk of damaging the vehicle paint during removal).

However, in certain cases, such as THE200EVO film applied to trains, heavy machinery or boats, the VR7077 sealing varnish will be required to reinforce the film edges.

6.1. Edge sealing tape:

To enhance the adhesion of THE200EVO film to areas exposed to heavy wear such as door sills, wheel cages, etc. you can use strips of the PC190G2 laminate for slightly curved surfaces.

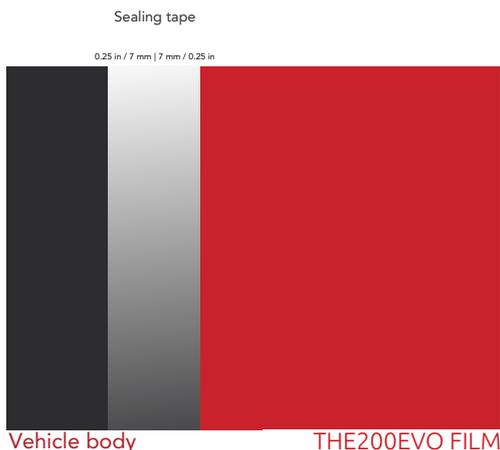


Figure 08

- › Cut the laminate into a strip of 14 mm (½ in.) wide.
- › Apply the strip by overlapping it by approximately 7 mm (¼ in.) over the body work and 7 mm (¼ in.) over the THE200EVO film. (FIG. 08)

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

6.2. Edge sealing varnish:

The VR7077 sealing varnish must be applied only to reinforce the seal between THE200EVO film borders and the substrate.

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 THE200EVO.
 - 1 to THE200EVO at 5 mm (0.2 in.) from its edge. (FIG. 09)
- › 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 varnish coat's thickness 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.

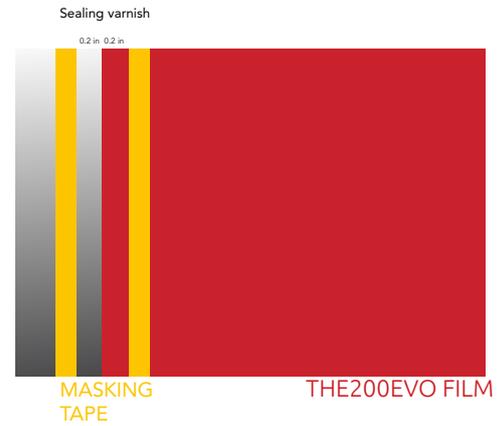


Figure 09

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

7. CLEANING AND MAINTENANCE OF THE200EVO FILM:

For optimum maintenance of the complex THE200EVO + laminate, HEXIS suggest to use their range of ProTech® cleaning agents specially designed for full wraps.

THE200EVO 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 cleaners: Apply medium water pressure at a minimum distance of 50 cm (20 in.) and a maximum water temperature of 35 °C (95 °F).

⚠ The film should not be cleaned within the first 48 hours following its application as this can affect the adhesive strength which may result in the film peeling off.

⚠ Solvents and corrosive detergents must not be used.

⚠ 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; we are not accountable for these mechanical effects that may affect the vinyl appearance.

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



8. REMOVAL PROCEDURE:

THE200EVO film features a permanent adhesive and therefore its removal needs some attention. 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 (140 °F) (use the laser thermometer).
- › Gently lift the corner with the cutter without damaging the substrate, and gradually remove the previously heated film; the film should form a 70- to 80-degree angle with the substrate.

⚠ A more or less wide 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 peel off the film gently 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: 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, 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.

