

PRODUCT BULLETIN

APPLICATION AND REMOVAL METHOD Film for vehicle glazing **BFSHIELD**

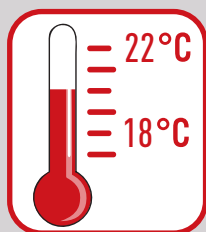
REQUIRED EQUIPMENT

- › 1.5-l SPRAYBOX sprayer
- › 19-l SHAGSPRAY sprayer
- › HEXISOAP bottle with application solution to be diluted
- › SHAGPAM squeegee
- › POIGNVITRE handle with LAMVITR15 or LAMVITRE cleaning blade
- › SHAGKNIFE or CUTVITRE cutter with a small blade
- › LAMOLFAS50 or LAMOLFAS10 blade refill
- › Metal scraper GRATLAME100 + LAME100 blades
- › Absorbent paper or microfibre cloths
- › Surface cleaning liquid SHAGREMOV
- › Ceramic coating kit NANOSERUM by HEXIS

STORE YOUR FILMS UNDER APPROPRIATE CONDITIONS

Keep the films away from all major sources of heat (radiators and heaters, direct exposure to sunlight, etc.).

Shelf life: The shelf life of this film is 2 years when stored in its original packaging at a temperature ranging from 18 °C to 22 °C (+64 °F to +72 °F) with relative humidity between 30 % and 70 %.



FEATURES

The protective BFSHIELD film is a premium film for windscreens. The film is scratch-resistant, self-healing at ambient temperature, extremely hydrophobic and has no distorting effect on the visual field. The film has to be applied without thermoforming to the outside of windscreens.

PREPARING YOUR APPLICATION SURFACE

The windscreen protection films can be applied to any kind of automobile windows, provided the target surface is clean, impact-free 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). CLEANING:, page 2).

Caution: *It is the responsibility of the installer to make sure that the modifications to the vehicle's glazing comply with their country's current legislation. HEXIS S.A.S. is not liable in the event of violation noted concerning the glazing's modification.*

Caution: *The application of windscreen protection films must be carried out by an installer having passed the "Tear-off or BODYFENCE" training accreditation. No claim will be accepted by HEXIS S.A.S. following any film application carried out by an unauthorised installer.*

The technical data sheets of the films used are available on our website www.hexis-graphics.com.

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1. RECOMMENDATIONS:

- › Clean the windows only with the products listed in chapter 3. CLEANING; page 2.
- › Ensure the external cleanliness of the vehicle.
- › Always comply with your country's current legislation.
- › The BFSHIELD film is applied to the outer side of windscreens.

The technical data sheet is available on www.hexis-graphics.com.

- › Note that an average installation should take about 30 minutes. Difficult windscreen protection film applications will take slightly longer.

! *The outer side of BFSHIELD is protected by a PET film which must be removed once the BFSHIELD has been pre-sized to the size of the windscreen.*

2. PREPARATION OF THE APPLICATION SOLUTION:

- › Fill the HEXISOAP solution in a 19-litre (SHAGSPRAY) or 1.5-litre (SPRAYBOX) sprayer, then top up with water, i.e. 7 pumps of HEXISOAP per litre of water.

3. CLEANING:

- › Clean all surfaces with which the adhesive-coated film may come into contact (e.g. bonnet, fenders, windscreen wipers, etc.).
- › Wet the windscreen thoroughly with the SHAGSPRAY solution.
- › Scrape the surface of the windscreen only with the scraper (GRATLAM100 + LAME100) to remove any residue stuck to the surface. (FIG. 01)

! *Only use new LAME100 blades to scrape the windscreen. HEXIS cannot be held responsible for any damages and degradations caused to the substrate during the cleaning operation. It is the responsibility of the installer to take all the necessary precautions during this operation.*

- › Use non-abrasive tools to clean the window pillars, borders and all sections adjacent to the windscreen in order to remove as much dust and impurities as possible that could adhere to the adhesive-coated film.
- › Rinse the windscreen from top to bottom with the solution contained in the SHAGSPRAY sprayer in order to remove all impurities from the glass.
- › Remove the excess liquid using a short glass scraper (LAMVITR15 or LAMVITRE).

4. FILM PREPARATION:

! *To avoid leaving fingerprints on the film, all handling must be carried out:*
 - with clean hands only,
 - in the areas that will be outside of the visual field.

- › Measure the windscreen's size.
- › Cut the film to the length corresponding approximately to that of the windscreen.
- › Wet the windscreen thoroughly.
- › Position the film on the windscreen with the liner in contact with the glass.



Figure 01

- › Cut the film roughly to the shape of the windscreen, leaving an excess of 2 to 3 cm of material on each side. (FIG. 02)



Figure 02

- › Remove the surface protection film while keeping the BFSHIELD in contact with the windscreen.

5. FILM POSITIONING - 'WIND UP' METHOD:

When finished the last working step of chapter 4, wind up the film tightly lengthways, with the liner facing the inner side of the roll. (FIG. 03)

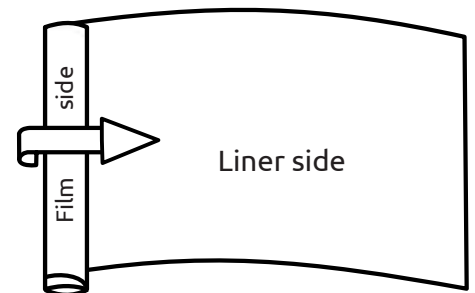


Figure 03

- › Unwind approximately 20 cm of the film.
- › Generously wet the liner (inner surface of the roll) with the SHAGSPRAY. (FIG. 04)
- › Re-wind the film tightly, to about 2 or 3 cm from the edge.

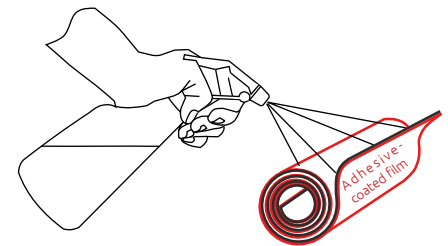


Figure 04

- › Start separating the liner from the BFSHIELD film starting from a corner.
- › Continue separating the liner across the entire width of the roll, while generously wetting the adhesive. (FIG. 05)

Take care not to release the roll while separating the film from the liner.

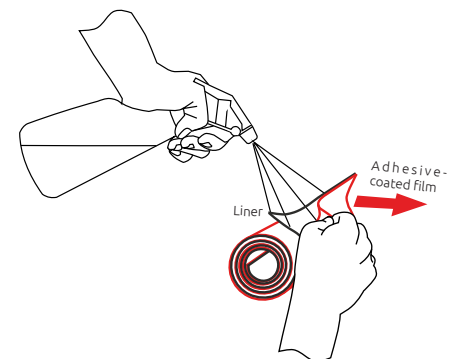


Figure 05

- › Fold the separated liner on the outer side of the BFSHIELD film (non-adhesive-coated side) and hold it in contact with the roll. (FIG. 06)

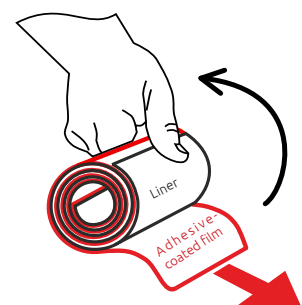


Figure 06

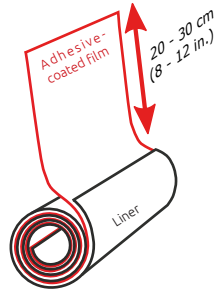


Figure 07

- › Then unwind approximately 20 to 30 cm of the film. (FIG. 07)

- › Re-wind the roll from the inside while keeping the adhesive-coated section in the open air.
- › Spray the application solution on the film and on the windshield again.
- › Unwind approximately one metre of film while holding the roll firmly.
- › Fold 50 centimetres of the outer side of the film on itself.



Figure 08

- › Place the adhesive-coated film on the far side of the windshield whilst correctly aligning to the lower part of the windshield. Keep in place the part of the film that has been folded on itself during the previous working step. (FIG. 08)

Hold the roll + liner firmly during the positioning operation and take care that the adhesive-coated side of the film does not come into contact with itself during the installation.

- › Unwind a part of the roll of film + liner while keeping the adhesive-coated film on the windshield.

HEXIS tip: Apply moderate pressure to the film in order to minimise the risk of it sticking to the substrate.



Figure 09

- › Secure the roll under the bonnet.
- › Position and adjust the folded film section on the windshield border. (FIG. 09)



Figure 10

- › Then generously wet the roll and the rest of the windshield to be covered. (FIG. 10)

- › Finish unwinding the film.

- › Remove the liner while holding the adhesive-coated film in place on the windscreen. (FIG. 11)



Figure 11

- › Gently lift a part of the film from which the liner has just been removed and wet the windscreen. (FIG. 12)
- › Replace the film correctly on the windscreen.



Figure 12

6. FILM APPLICATION:

- › Continue applying the film (FIG. 13) while using the SHAGPAM squeegee in order to evacuate the remaining water from underneath the film.

It is important to apply enough pressure, but not too much, so as not to leave marks on the adhesive-coated film (whitish marks on the contact areas).

Note: Make sure that the SHAGPAM squeegee is in perfect condition.

Any notch or scratch in the squeegee will leave a residue of water on the substrate. If necessary, replace it prior to completing this step.

- › Proceed as follows:

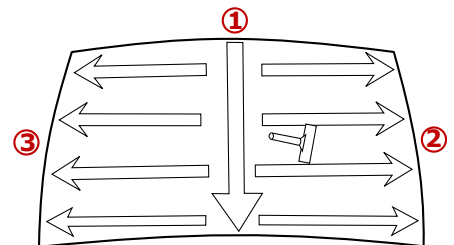


Figure 13

- › Apply the film to a vertical centre area ①, from the top of the windscreen to the bottom. (FIG. 14)



Figure 14

- › Then work on each half of the windscreen.

- › Apply the film horizontally by starting from the centre area ① performed during the previous working step towards the edge ②. (FIG. 15)



Figure 15

- › Continue to evacuate the water gradually from the centre outwards while exerting light tension to the film ends in order to spread out the folds.



Figure 16

- › Then adjust the position of the film on the other side of the windscreen ③ and apply it with the squeegee. (FIG. 16)



Figure 17

- › Wet the entire film surface again.
- › This time, use the SHAGPAM squeegee vertically only, from top to bottom over the entire film surface while firmly pressing on the squeegee. Start from the centre area ④. (FIG. 17)

Note: Any water left behind may give a soiled appearance to the film.



Figure 18

- › Firmly press the squeegee over the film edges. (FIG. 18)



Figure 19

- › Using the squeegee, apply the film along the side edges of the windshield if not fitted with a rubber seal/an aluminium trim. (FIG. 19)



Figure 20

- › Otherwise, use the edge of the squeegee (squeegee perpendicular to the windshield) to push the film in the angle formed between the windshield and the seal/aluminium trim so as to trace the seal border. (FIG. 20)

7. FILM CUTTING:

- › Once the film has been applied, carry out the final cutting using a cutter fitted with a special LAMOLFAS50 blade for glass.

! *HEXIS advise you to carry out a superficial cut if you master this technique. If not, do not press on the blade when cutting to avoid scratching the windscreen.*

Depending on the case, make either a flush cut (paragraph 7.1) or a straight cut without overlap (paragraph 7.2).

7.1. Flush cut:

- › For trimming the film, the cutter blade must be placed in a flat position on the windscreen edge at a 45° angle in the direction of the cut. (FIG. 21)
- › Remove any excess film.



Figure 21

7.2. Straight cut without overlap:

- › For trimming the film, the cutter blade must be placed in a flat position along the seal, at a 45° angle in the direction of the cut. When cutting, make sure you always maintain this blade inclination, without pressing on the film to avoid scratching the windscreen. (FIG. 22)
- › Remove any excess film.



Figure 22

8. FINISHINGS:

- › Round off the corners of the film to avoid any risk of it peeling off from these areas. (FIG. 23)

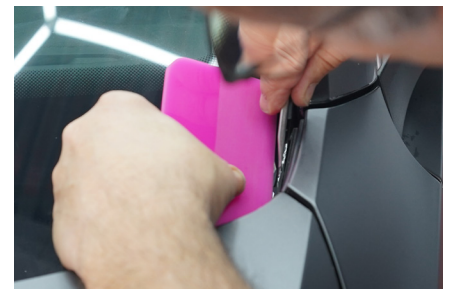


Figure 23

- › Make the final finishings with the squeegee wrapped with absorbent paper or a microfibre cloth. Run the squeegee over all edges of the film to ensure that all water has been evacuated. (FIG. 24)

- › Finish by wiping off the windscreen with a clean microfibre cloth.

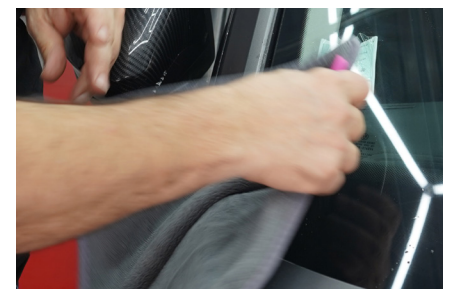


Figure 24

! *Always use a clean and dry absorbent paper for this working step. Using an old absorbent paper can bring water or contaminants under the film. This may cause the film to lift or even scratch the film.*

9. FILM TREATMENT:

Although the film is hydrophobic, this property will reduce over time depending on the conditions of use and maintenance of the film.

HEXIS recommend treating it with the NANO SERUM by HEXIS as soon as you have finished the film application and then periodically in order to preserve and then regenerate the hydrophobic properties of the film.

The NANO SERUM by HEXIS must be applied by a qualified professional in a clean, dust-free, well-ventilated place away from sunlight.

HEXIS tip: Please refer to the technical data sheet of the NANO SERUM by HEXIS for the details of the liquid's application method.

Note: A slight change in the appearance of the film may be observed after treatment with the NANO SERUM by HEXIS, but this will not impair in any way the quality of the film. HEXIS consider this change in appearance to be normal, taking into account the addition of a NANO SERUM by HEXIS layer to the surface of the film, and will not accept any claim on this ground.

The protective effect of the NANO SERUM by HEXIS may be impaired and reduced if the windscreen wipers are frequently used or if the windscreen is frequently cleaned with automatic rollers in car wash stations. The ceramic treatment loses its effectiveness when the water-repellent effect becomes irregular on the surface of the film.

! *The NANO SERUM by HEXIS is a technical product that requires a meticulous application by a qualified professional. The HEXIS company cannot be held responsible for any traces of application, demarcations, rings, etc. visible on the film resulting from incorrect application of the product.*

HEXIS decline all responsibility in the case of inappropriate use or failure to comply with the safety instructions for all their products.

10. CLEANING AND MAINTENANCE OF THE FILM:

! *Do not use any type of scraper or any abrasive item nor any corrosive or abrasive liquids for cleaning the film.*

- › Carry out the final cleaning. Let the film dry for about one hour and then the car will be ready for the final delivery to the customer.

In colder climates, the film may require a longer drying time before you can drive the car.

Note: Inform the customer that the complete drying time of the film can take from one week to one month depending on humidity and weather conditions.

- › The car can be cleaned in a car wash after 7-10 days of film drying time.
- › You can also use soapy water and a soft sponge to clean the film.

11. REMOVAL PROCEDURE

The windscreen film BFSHIELD features a special adhesive that makes it easy to remove.

- › Gently lift the corner of the BFSHIELD film with the cutter without damaging the glass substrate and pull it in order to remove it. The film should form a 70- to 80-degree angle with the windscreen so as to limit the risk of leaving any adhesive on the substrate or tearing off the film. (FIG. 25)



Figure 25

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

- ▶ During film removal, if any adhesive remains on the windscreen, take a cloth soaked with our SHAGREMOV product and rub the windscreen until all traces disappear.

⚠ *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.*

SHAGREMOV
Powerful cleaning
agent



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. None of the information constitutes however 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.



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