PRODUCT BULLETIN

APPLICATION GUIDE

Antimicrobial Films:

PURE ZONE® RANGE

(PURZON060B - PURZON060M)

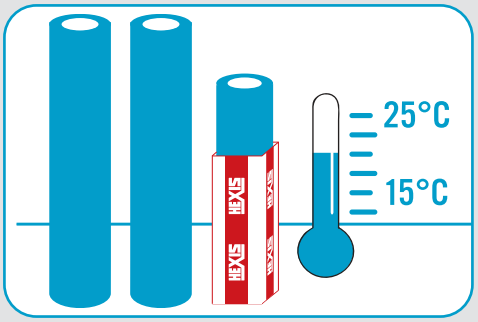
REQUIRED EQUIPMENT

- Laminator
- Tesa® 7476 adhesive tape
- Cleaning liquids :
  - HEXIS'O cleaning agent,
  - SHAGREMOV
  - SHAGCLEAN
  - cleaning products currently used in healthcare industry, as per ANIOSURF (ANIOS Laboratories), diluted with water (refer to the manufacturer's specified dosages).
- Application liquid HEXISGEL
- Heat gun
- Squeegees upon your choice from the catalogue
- Different HEXIS application tools

STORE YOUR FILMS UNDER APPROPRIATE CONDITIONS

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

The shelf life of this film is 1 year when stored in its original packaging at a temperature ranging from 15 °C to 25 °C (from 59 °F to 77 °F), with relative humidity between 30 % and 70 %.



FEATURES

Range of clear cast PVC films, intended for the antimicrobial protection of surfaces in areas requiring a high level of hygiene. The film is suitable for the protection of smooth surfaces (smooth walls, doors, glass surfaces, etc.)

For further technical information on our antimicrobial films, please refer to the technical data sheet available on our website at www.hexis-graphics.com.

CONTENT

1. RECOMMENDATIONS: 2
2. PRELIMINARY TESTS OF THE APPLICATION SURFACES: 2
2.1. Preliminary inspection of the substrate: 2
2.2. Tear-off test: 3
2.3. Outgassing test: 3
2.4. Outgassing procedure with flame treatment: 3
3. CLEANING: 3
3.1. Films required to be laminated: 3
3.2. Flat surfaces: 3
4. FILM APPLICATION: 4
4.1. PURE ZONE® hologram logo: 4
4.2. By laminating: 4
4.3. APPLICATION TO SMOOTH WALLS / DOORS: 5
4.4. To even and flat surfaces 5
4.5. Complex shape tables / trays: 7
4.6. Installation on screens (glass): 7
4.7. Installation on door handles: 9
4.8. WET METHOD: 9
5. CLEANING AND MAINTENANCE OF THE FILM: 11
6. REMOVAL METHOD: 11

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.

PREPARING YOUR APPLICATION SURFACE:

The antimicrobial PURE ZONE® 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.

When covering flat surfaces:
To avoid unexpected results, always assume that every substrate is dirty and needs to be cleaned prior to any application. (cf. chapter 3).

An application in a hospital environment must comply with specific requirements about hygiene and safety which may vary depending on the department / type of room in which the film is installed. In all cases, refer beforehand to the regulations applicable in the institution or department concerned by the intervention.

› To carry out an application of antimicrobial films in a hospital environment, HEXIS recommend at least to follow the precaution measures stated below:
- › wear clean cotton trousers and top (hospital outfit-like),
- › wear disposable latex gloves (or equivalent), or new cotton gloves,
- › cover shoes with disposable over-shoes,
- › during application and for carrying tools, use a stainless steel trolley

⚠ *The tools and the trolley must be clean (comply with cleanliness standard applicable in the institution or department concerned by the intervention). The installer must keep a separate set of tools for hospital environment that must not be used in any other environment. Certain hospital zones may require additional precautions. Refer to the internal rules in use in the hospital.*

HEXIS describe in this document the possibility of using certain liquids for cleaning, installation and removal. It is the responsibility of the installer to ensure the suitability of these products for use in the department / hospital institution under consideration.

When laminating a HEXIS digital printing film, optimal drying time for the inks must be observed:

- 48 hours for cast films,
- 24 hours for calendered films.

Do not forget to carry out a preliminary trial on a small surface to check if the substrate remains undamaged and complies with the specifications given in the technical data sheets available on our website at www.hexis-graphics.com.

1. RECOMMENDATIONS:

› Optimal adherence of the antimicrobial films is obtained after 24 hours following application.

2. PRELIMINARY TESTS 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.

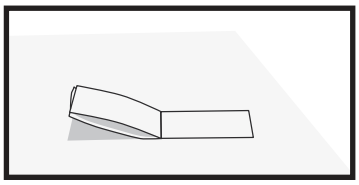
The installer and the customer are responsible for the suitability assessment of the target surface to be covered.

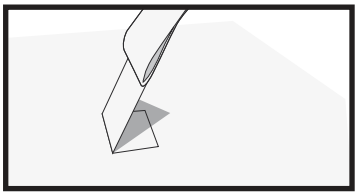
2.1. Preliminary inspection of the substrate:

› Any fresh new paint must have 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, 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® 7476 adhesive tape, or the like, apply 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 off perpendicularly 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.*

2.3. Outgassing 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 outgassed. Therefore, this process should be repeated after a couple of days; or else the procedure described below should be carried out.

2.4. Outgassing procedure with flame treatment:

(Polycarbonate, translucent or diffusing metacrylate, 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 right after that treatment as this light surface treatment disappears after a few minutes.

> *HEXIS are not liable for any bubbles caused by outgassing.*

3. CLEANING:

3.1. Films required to be laminated:

Make sure that there is no dust on the film or laminator rolls.

If necessary, use a lint-free cloth to remove any dust from the rolls or film to be laminated.

3.2. Flat surfaces:

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 contaminants may not be visible; however, they may impact the adherence 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 at www.hexis-graphics.com.*

3.2.1. *Clean surface appearance:*

HEXIS'O
Cleaner and degreaser



Before applying the film to the surface to be covered, it is recommended to clean it with the gentle HEXIS'O solution. Dry it with a clean, lint-free cloth.

3.2.2. *Soiled surface appearance:*

Clean the substrate with a cloth soaked with the powerful cleaning agent SHAGREMOV to remove adhesive residues and other contaminants (diesel, oil, tar, grease, graffiti traces, etc.).

SHAGREMOV
Powerful cleaning agent



- Work 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. Indeed, certain plastic materials might be damaged by the SHAGREMOV.
- For surfaces soiled by stubborn contamination, spray the cleaning agent directly onto this area and clean it with an abrasive sponge.

Let it work for a few minutes. Spray the SHAGREMOV again on the soiled surface, then wipe it with a clean cloth or squeegee.

SHAGCLEAN
Finishing cleaning and degreasing agent



- When the substrate is clean and dry, clean it again with the SHAGCLEAN.

4. FILM APPLICATION:

4.1. PURE ZONE® hologram logo:



HEXIS supply PURE ZONE® holograms so that you can label surfaces protected by antimicrobial structured laminates and therefore communicate to users of premises containing such surfaces.

Affix this logo in a corner of the surface to be protected before applying the laminate.

4.2. By laminating:

The antimicrobial PURE ZONE® films can be used to laminate HEXIS digital printing films. For an optimum result without wrinkles and bubbles, HEXIS recommend the use of a laminator for the application.

Advice: In all cases, carefully read the laminator instructions and carry out a preliminary test application.

4.3. APPLICATION TO SMOOTH WALLS / DOORS:

Apply only to perfectly smooth and clean walls. The adhesion of the antimicrobial films will not be sufficient in the case of a wall with an uneven surface.

› Wear gloves.

› Remove approximately 10 cm (4 in.) of the liner and start the application from the top.

› Apply the film with the squeegee (previously covered with felt), forming an angle of 45° between the surface of the squeegee and the vinyl. Move the squeegee from the centre towards the edges of the vinyl. (FIG. 01)

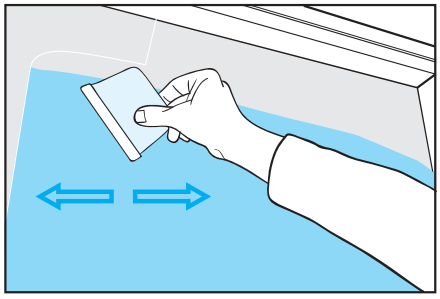


Figure 01

› Progressively remove the liner and proceed with the vinyl application, moving the squeegee as described above.

› Installation on an edge (FIG. 02): Install on the first wall with an overlap of 2 cm -3 cm (0.79 in. to 1.18 in.) on the adjoining wall (film 1). Then install the film on the second wall (film 2), and keep going until the edge.

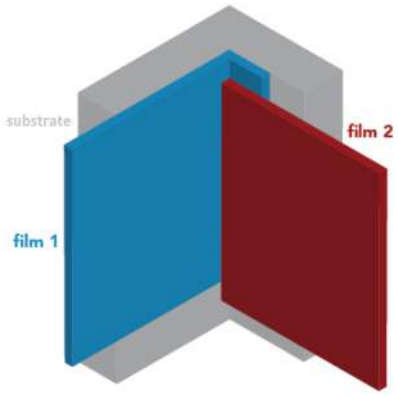


Figure 02

› If the covering of the surface requires the installation of several successive widths, make the joints between the widths in the following manner (FIG. 03): Install the second width (film 2) with an overlap of approximately 1 cm (0.39 in.) over the next width (film 1). Using a box cutter, cut the overlapping film (film 2) along the edge of the overlapped film underneath (film 1). Remove the surplus cut of film 2.

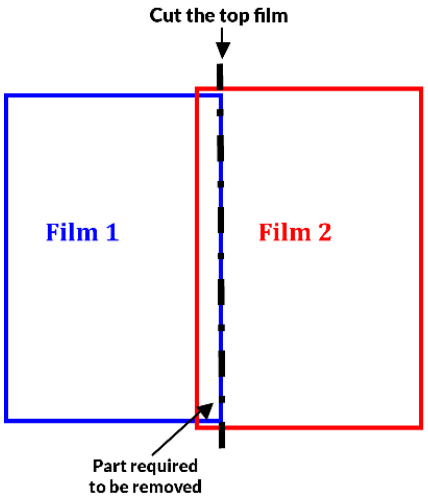


Figure 03

4.4. To even and flat surfaces.

The following instructions concern the application of either the film alone or a structured PURE ZONE® laminate compound.

If the shape of the flat surface to be covered is suitable, it is recommended to apply the film using one single piece of vinyl:

Follow the instructions mentioned below for covering a horizontal plate of table or tray and its edges.

› Put on gloves.

› Prepare a piece of film slightly larger than the surface to be covered taking into account the parts to be folded over the edge of the tray.

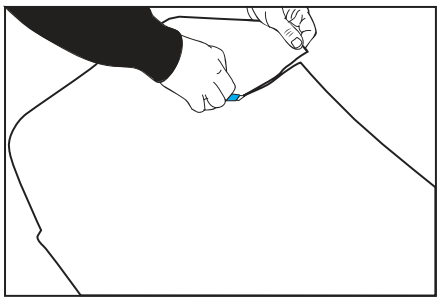


Figure 04

› Remove approximately 10 cm (4 in.) of the liner. (FIG. 04).

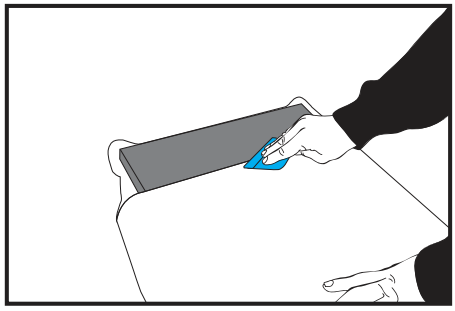


Figure 05

› Start the application of the film from the rim of the horizontal plate of the table or tray. (FIG. 05)

› Apply the film with the squeegee (previously covered with felt), forming an angle of 45° between the surface of the squeegee and the vinyl. Move the squeegee from the centre towards the edges of the vinyl.

› Progressively remove the liner and proceed with the application of the vinyl, to the complete surface of the horizontal part of the table / the tray, moving the squeegee as described above.

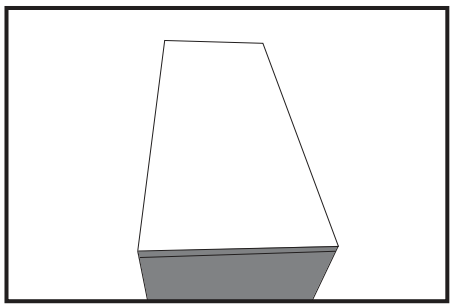


Figure 06

› Once the application to the horizontal surface is finished (FIG. 06), proceed with the cuttings to wrap the edges of the table.

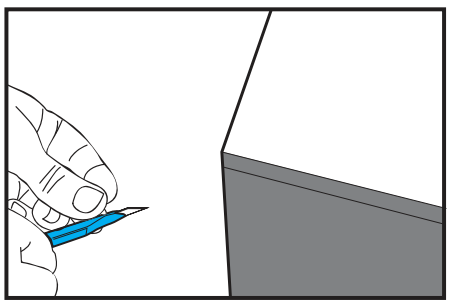


Figure 07

› Diagonally cut the film starting from the corner of the table. (FIG. 07)

› Apply the film to one of the edges of the table by folding the film over the angle of the edge. (FIG. 08)

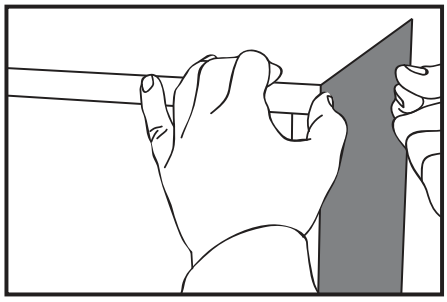


Figure 08

› Cut any excess matter leaving approximately 1 mm - 2 mm (0.04 in. - 0.08 in.) from the edge, (FIG. 09) then cover the adjacent edge.

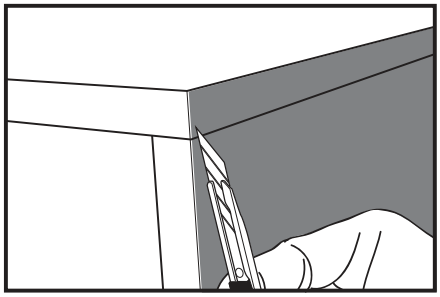


Figure 09

› Apply the film to the second edge and wrap the corner with a slight overlap of both films. (FIG. 10)

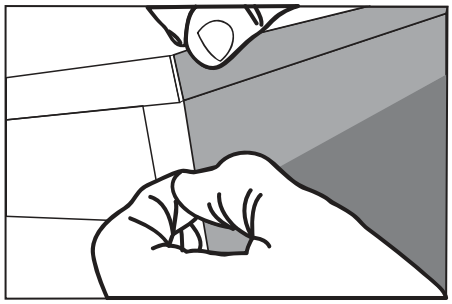


Figure 10

› Proceed in the same manner on the other three corners.

› If the shape of the table or tray is suitable, it is recommended to fold the film, over 1 cm - 2 cm (0.39 in. to 0.79 in.), under the horizontal plate.

4.5. Complex shape tables / trays:

If the shape of the table / tray is not suitable for an application to the horizontal plate and the edges in one single piece, proceed in parts:

› First install the horizontal plate using the same method as described in the previous paragraph. (FIG. 05) (FIG. 06) (FIG. 07)

› Cut the film at the edge of the horizontal plate and use additional pieces of film to wrap the edges of the plate.

4.6. Installation on screens (glass):

Before installing on a screen, make sure that it is actually made of glass and not of plastic material.
With respect to the variety of existing substrates, please make sure of their compatibility with the self-adhesive film by running a test, prior to treatment, on a small, inconspicuous area of the surface to be covered.
As the film features a permanent adhesive, the latter can partially remain stuck on the substrate during removal. Please refer to chapter 6. REMOVAL METHOD:, page 11 to carry out the removal of your film in optimum conditions.

⚠ *Hexis are not liable for any damages caused to the substrate during the removal and the application of these films to screens.*

› Put on the gloves.

› Cut a rectangle slightly larger than the screen to be covered.

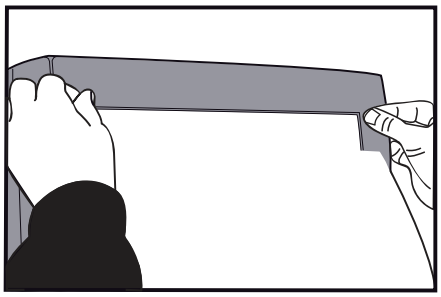


Figure 11

› Remove approximately 10 cm (4 in.) of the liner and stick the film on the edge of the screen. (FIG. 11)

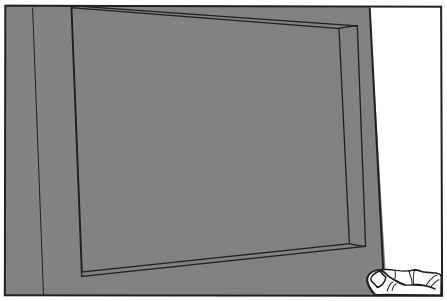


Figure 12

› Completely remove the liner and position the film on the screen. (FIG. 12)

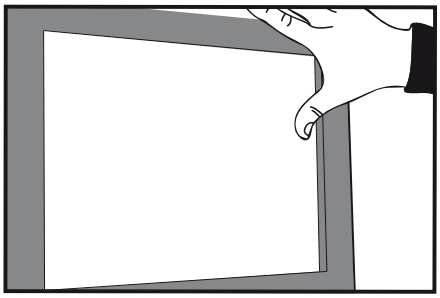


Figure 13

› Start the application to the screen. Apply the film progressively. As you work on a transparent substrate, it is important to apply the film very evenly. This application can be carried out either with a squeegee (previously covered with felt), or by hand (wear cotton gloves). (FIG. 13)

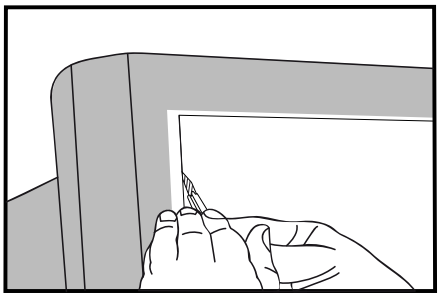


Figure 14

› Cut the film, using the CUTVITRE fitted with a new blade, following the edge of the screen. (FIG. 14)

⚠ *Caution: too strong cutting pressure may result in substrate scratching. HEXIS cannot be held responsible for any damages and degradations caused to the substrate during film cutting. It is the responsibility of the installer to take all the necessary precautions during this operation.*

› Remove any excess material.

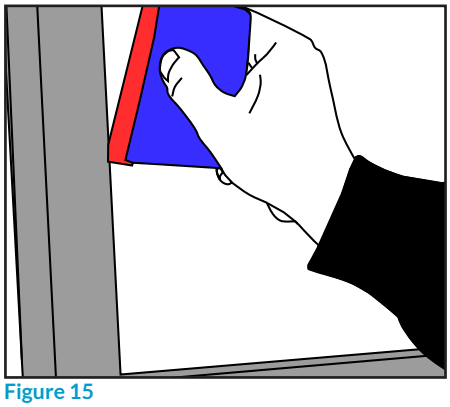


Figure 15

› To finish, apply the edges firmly with the felt-covered squeegee. (FIG. 15)

4.7. Installation on door handles:

Only the straight grip of the door handle needs to be protected with the antimicrobial film.

› Wear gloves.

› Cut a rectangle of the film and remove the liner.

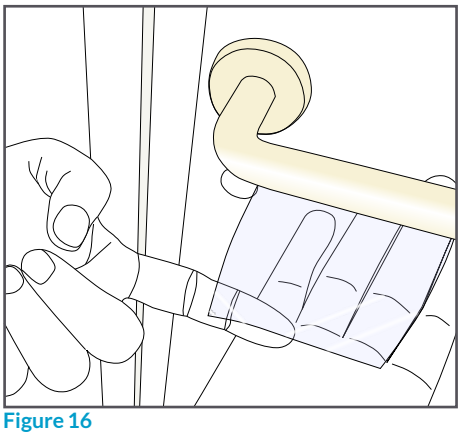


Figure 16

› Position the film starting on the underside of the handle. Wearing gloves, apply the film by hand to the rear side of the handle. (FIG. 16)

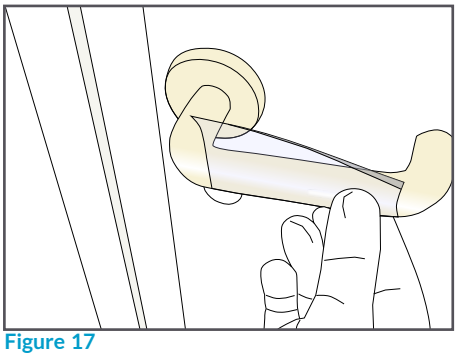


Figure 17

› Continue the film application wrapping all around the handle while moving with your hand from left to right so as to properly apply the film to the full width of the handle. (FIG. 17)

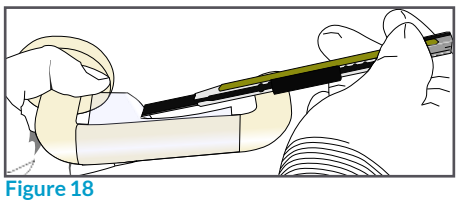


Figure 18

› Finish with a small overlap (approx. 2 mm / 0.08 in.) with the other end of the film at the rear side of the handle. Cut the excess film. (FIG. 18)

4.8. WET METHOD:

If the location is suitable, the application of a vinyl to a flat surface can be done via the wet method, using the application liquid HEXISGEL.



Figure 19

› Moisten the target substrate. (FIG. 19)

› Lay down the vinyl on the substrate; liner facing towards you.

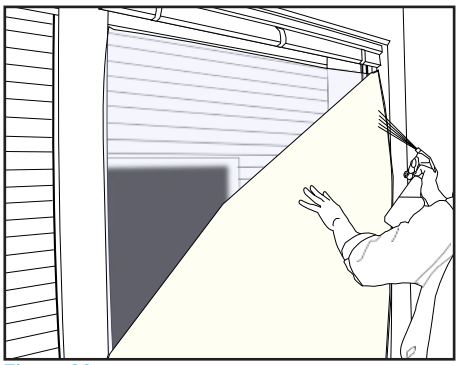


Figure 20

› Remove the protective liner completely while moistening the adhesive side with the HEXISGEL solution. (FIG. 20)

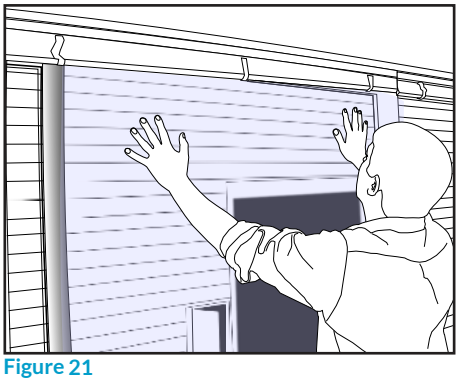


Figure 21

› Turn the vinyl over and pre-adjust it; then position the film by sliding it over the surface. (FIG. 21)

› Moisten the face side of the graphic with the HEXISGEL solution so as to reduce the friction of the squeegee.

› Apply with the help of the squeegee (previously covered with felt), starting from the centre towards the edges, and from the top towards the bottom.

› Pay particular attention to the corners and edges of the film. Make sure these areas are applied correctly.

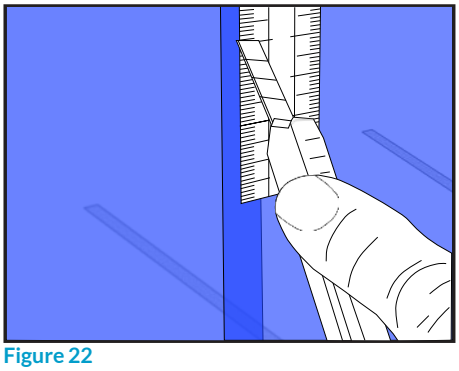


Figure 22

› If the covering of the surface requires several successive widths, make the joints between two widths in the following manner:

› Install the second width (film 2) with an overlap of approximately 1 cm (0.39 in.) on the next width (film 1).

› Place the ruler on the entire length of the overlap and in its middle. (FIG. 22)

› Using the CUTVITRE fitted with a new blade, cut in one-shot, evenly pressured, in the middle of the overlap so as to cut through the two layers of film while preventing cutting into the substrate underneath.

⚠ *Caution: too strong cutting pressure may result in substrate scratching. HEXIS cannot be held responsible for any damages and degradations caused to the substrate during film cutting. It is the responsibility of the installer to take all the necessary precautions during this operation.*

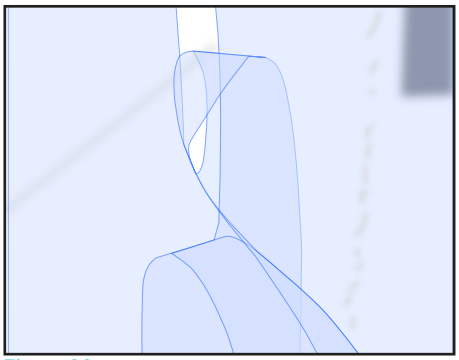


Figure 23

› Remove any film excess.

› Moisten the film again and finish the application by squeegeeing in parallel to the junction. (FIG. 23)

5. CLEANING AND MAINTENANCE OF THE FILM:

⚠ *The film should not be cleaned within the first 24 hours following application of the laminate or complex as this can affect the adhesive strength that may result in the film peeling off.*

› The film can be cleaned or disinfected by any conventional cleaning methods, using non-abrasive accessories and cleaning agents, detergents or standard products in use in healthcare environments.

The anti-microbial activity of the PURE ZONE® films lasts, even after 365 washes with water, alcohol or a cleaning / disinfectant product (type ANIOSURF (ANIOS Laboratories)).

6. REMOVAL METHOD:

The PURE ZONE® range films feature a permanent adhesive and therefore their removal, when applied to flat surfaces, needs some attention. Nevertheless, by following the method described below, their removal can be facilitated.

In most cases, if allowed by the substrate, the removal process will be simplified when applying heat.

⚠ *Caution: Always run a removal test on an inconspicuous area of the substrate. HEXIS cannot be held responsible for damages and degradations caused to the substrate during this process.*

› For substrates allowing the use of heat, use a heat gun, start from a corner and heat the film to a temperature of around 60 °C (140 °F) (laser thermometer).

› Lift the corner gently with the cutter without damaging the substrate, and gradually remove the film previously heated; the film should form an angle of 70° to 80° relative to the substrate surface.

An angle more or less wide or acute 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 off the film.

› Continue to peel off the film gently until it is completely removed while keeping a watchful eye on the heat applied, on the film's pulling angle and pulling speed.

› If any adhesive remains on the substrate, take a cloth soaked with our SHAGREMOV and rub the surface until all traces disappear.

⚠ *Always check the compatibility and non-aggression of the liquids with the substrate by carrying out a test on a small, inconspicuous area of the substrate. HEXIS are not liable for damages and degradations caused to the substrate by using incompatible products.*

Before using any of our liquids, please refer to our data sheets on our website at: 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 media 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*.

HEXIS®

www.**hexis-graphics**.com