

# PRODUCT BULLETIN

## APPLICATION GUIDE

# Antimicrobial Films:

## PURE ZONE® RANGE

### (PURZON060B)

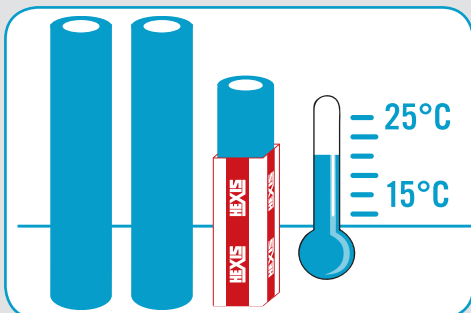
### REQUIRED EQUIPMENT

- › A laminator
- › Tesa® 7476 adhesive tape
- › Cleaning liquids :
  - › HEXIS'O cleaning agent,
  - › ADHESIVE REMOVER N°.1
  - › FINAL CLEANER N°.3
  - › 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
- › Electric heat gun
- › Squeegees chosen from the catalogue upon your own choice
- › MALCOV HEXIS tool box

### STORE YOUR FILMS UNDER APPROPRIATE CONDITIONS

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

The shelf life of this film is 1 year if it is 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](http://www.hexis-graphics.com).

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Application methods are based upon HEXIS' experience and are non-restrictive. Comply with instructions to ease application of HEXIS films. HEXIS also offers training sessions for professionals to achieve optimum results.

## PREPARING THE TARGET 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 of any traces of oil, grease, wax, silicone or other polluting agents.


When covering flat surfaces:

To avoid unexpected results, always consider that every substrate is polluted 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 HEXIS digital print films, an optimal drying time 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 this substrate is not deteriorated and comply with the specifications given in the technical data sheets available on the [www.hexis-graphics.com](http://www.hexis-graphics.com) website.

## 1. RECOMMENDATIONS:

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

## 2. PRELIMINARY TESTS OF THE APPLICATION SURFACES:

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

It is the responsibility of the installer and the client to evaluate the good shape of the surface to be covered.

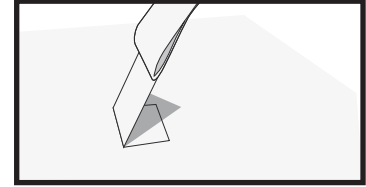
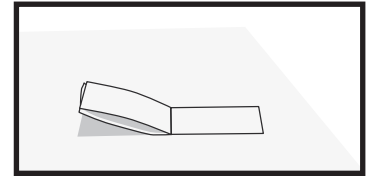
### 2.1. Preliminary inspection of the substrate:

- › Any fresh new 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, powdery or flaky paint must be sanded and renewed before application and must undergo a rip test.

## 2.2. Rip test:

Using a Tesa® 7476 adhesive tape, or the like, apply on a surface of 2.5 cm x 5 cm (1 in x 2 in) plus some extra length for hand grabbing. Fold and promptly tear off at a right angle to the substrate surface. No traces should be visible 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:

(For checking) Use an approx. 15 cm x 15 cm (6 in x 6 in) square 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. Repeat the test after a couple of days, or else use the method described below.

## 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 a gas burner flame. Using the flame blue tip, proceed in even and fast sweeps both horizontally and vertically along the whole substrate surface.



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

The film must be applied right after that surface treatment as this latter disappears after few minutes.

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

## 3. CLEANING:

### 3.1. Laminating films:

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

If necessary, use a lint-free cloth to remove dust from the rollers or the laminating film.

### 3.2. Flat surfaces:

Cleaning must be performed before installing. On principle, always consider that the substrate is not clean. Some residues or soiling may be invisible; nevertheless they affect the adherence of the film.



**Before using cleaning fluids or chemical agents, read the technical and safety data sheets available on our website: [www.hexis-graphics.com](http://www.hexis-graphics.com).**

### HEXIS'O Cleaner and degreaser



#### 3.2.1. Clean surface appearance:

Before applying the film on the surface to be covered, it is recommended to clean it with 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 powerful cleaning agent, ADHESIVE REMOVER N° 1, to remove adhesive residues and other contaminants (diesel, oil, tar, grease, graffiti traces, etc.).

### Adhesive Remover Powerful cleaning agent



- › Use in a ventilated area. Wear protective gloves and goggles.
- › Test on a small, non-conspicuous area for compatibility of the substrate before proceeding the cleaning. Certain plastic materials may indeed be damaged by the product ADHESIVE REMOVER (Product 1).
- › For areas soiled by stubborn contamination, spray the cleaning agent directly onto the area and clean with an abrasive sponge.

Leave it to work for few minutes. Spray again with ADHESIVE REMOVER (Product 1), then wipe with a clean cloth or squeegee.

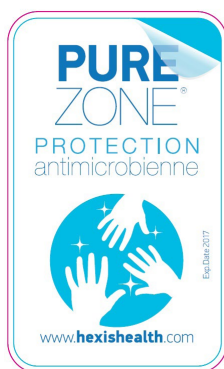
### Final Cleaner Finishing cleaning and degreasing agent



- › When the substrate is clean and dry, clean again with the product FINAL CLEANER (Product 3).

## 4. FILM APPLICATION:

### 4.1. PURE ZONE® hologram logo:



HEXIS supply PURE ZONE® holograms so that you can label surfaces protected by antimicrobial structured laminating film 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 laminating film.

### 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 ON SMOOTH WALLS / DOORS:

Apply only on 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 approx. 10 cm (4 in) of the liner and start the application from the top.
- › Apply with the help of the squeegee (previously covered with felt), held at 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)
- › Progressively remove the liner and proceed with the application of the vinyl, moving the squeegee as described above.

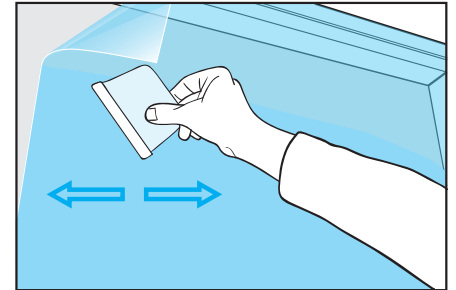


Figure 01

- › Installation on an edge (FIG. 02): Install on the first wall with an overlap of 2-3 cm (1 to 1½ in) on the adjoining wall (film 1). Then install the film on the second wall (film 2), going right until the edge.

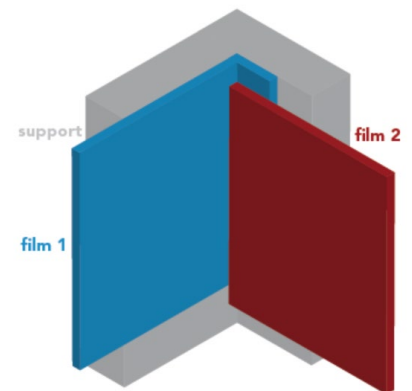


Figure 02

- › 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 approx. 1 cm (½ 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.

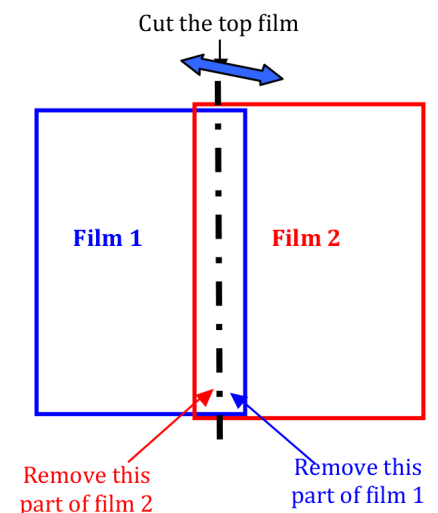


Figure 03

### 4.4. On 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.

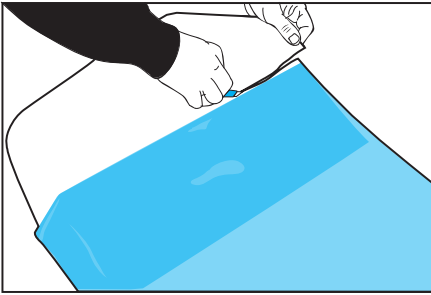


Figure 04

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

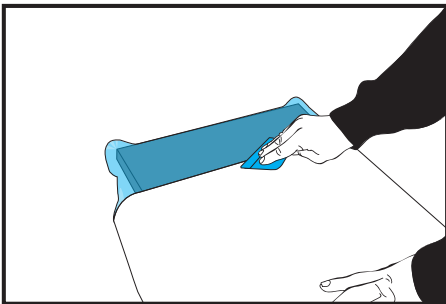


Figure 05

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

- › Apply the film using the squeegee (previously covered with felt), held at 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, over the complete surface of the horizontal part of the table / the tray, moving the squeegee as described above.

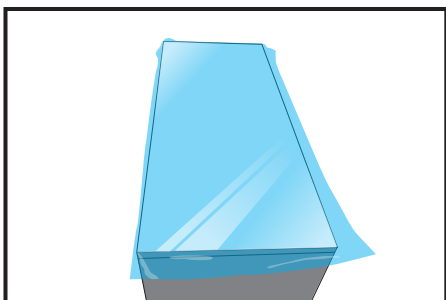


Figure 06

- › Once the installation on the horizontal surface is over (FIG. 06), proceed with the cuts to wrap the edges of the table.

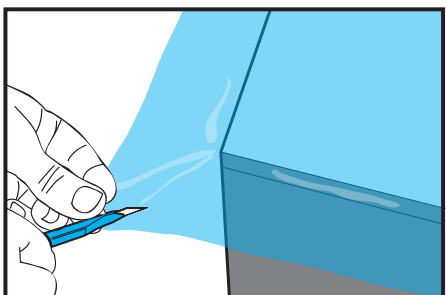


Figure 07

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

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

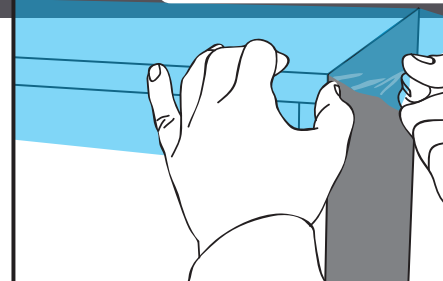


Figure 08

- › Cut any excess matter leaving approx. 1 mm - 2 mm (0.05 in - 0.1 in) from the edge, (FIG. 09) then cover the adjacent edge.

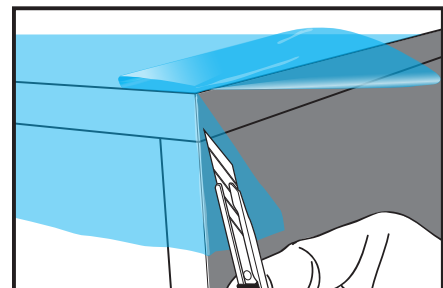


Figure 09

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

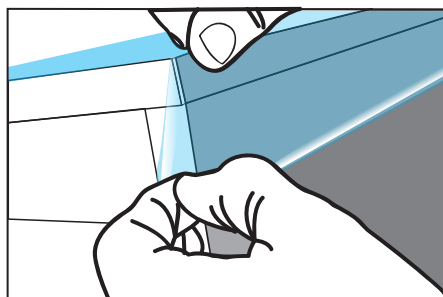


Figure 10

- › 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 (½ in to 1 in), under the horizontal plate.

#### 4.5. Complex shape tables / trays:

If the shape of the table / tray is not suitable for an application on 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. 04) (FIG. 05) (FIG. 06)
- › 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, non-conspicuous 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.

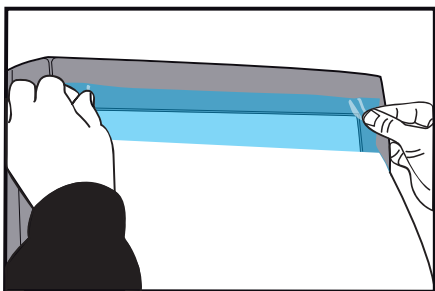


Figure 11

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

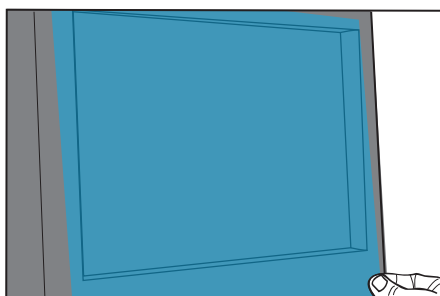


Figure 12

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

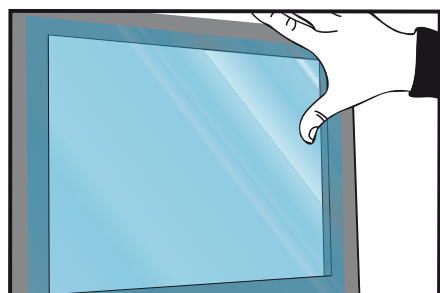


Figure 13

- › Start the application on 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)

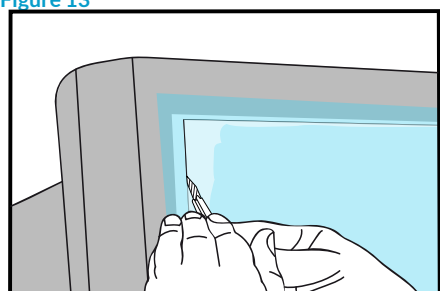


Figure 14

- › 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.

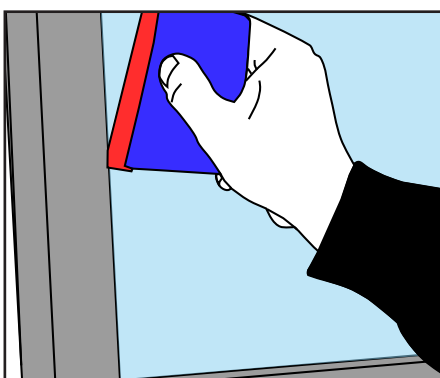


Figure 15

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

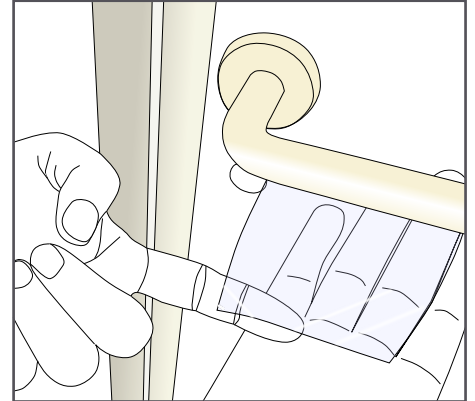


Figure 16

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

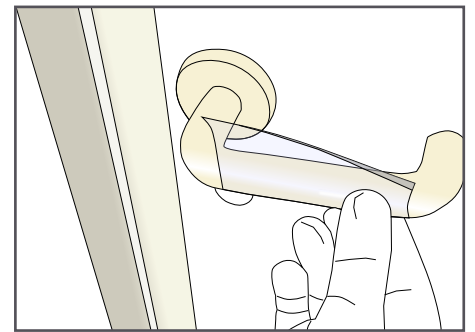


Figure 17

- › Finish with a small overlap (approx. 2 mm / 0.1 in) with the other end of the film at the rear side of the handle. Cut the excess film. (FIG. 18)

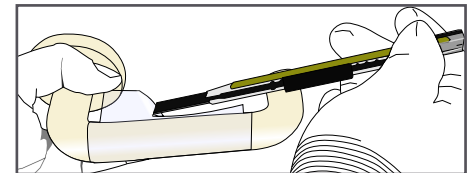


Figure 18

#### 4.8. WET METHOD:

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

- › Moisten the target substrate. (FIG. 19)



Figure 19

- › Lie 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 corners and the edges of the film. Make sure these areas are applied correctly.

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

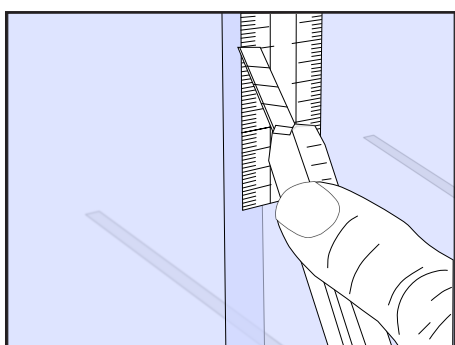


Figure 22

- › Install the second width (film 2) with an overlap of approx. 1 cm (1/2 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 24 hours after the application, otherwise the film adhesion may be at risk of 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 are provided with a permanent adhesive, so they are not easily removable when they have been applied to a flat substrate. Their removal can be facilitated, however, by following the method described below.


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

 *Caution: Always run a removal test on a non-conspicuous 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, and starting in a corner, heat the film at a temperature around 60 °C (140 °F) (laser thermometer).
- › Lift the corner using a box cutter without damaging the substrate and as you go along heating the film, continue removing the film; the film should be at an angle of 70° à 80° relative to the substrate.

*A greater or lesser angle could easily tear the film.*

- › Always proceed by heating small areas and by carefully lifting the film to reduce the risk of leaving an adhesive residue on the substrate or tearing the film.
- › Carefully continue heating and removing the film until it is completely removed, always checking the surface temperature, the stretching angle and the speed at which it stretches.
- › If some adhesive remains on the substrate, take a cloth soaked in our ADHESIVE REMOVER (product no. 1) and rub the substrate 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, non-conspicuous 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](http://www.hexis-graphics.com)*

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

Because of the great variety of substrates and the growing number of new applications, the installer must check the suitability of the media for each application. The information provided does not constitute a binding warranty. The seller is not held accountable for indirectly related damages beyond the replacement value of the purchased product. All specifications are subject to potential changes without prior notice. Updates of our specifications are automatically available on our website at [www.hexis-graphics.com](http://www.hexis-graphics.com).



[www.hexis-graphics.com](http://www.hexis-graphics.com)

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