

# PRODUCT BULLETIN

## APPLICATION GUIDE

### Protective film:

# STRUCTURED LAMINATE

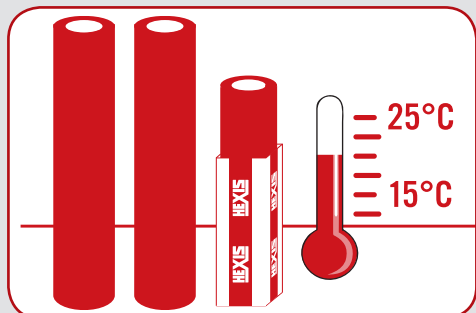
#### REQUIRED EQUIPMENT

- › Laminator
- › Tesa® 7476 adhesive tape
- › HEXIS'O cleaning agent
- › ADHESIVE REMOVER no. 1
- › FINAL CLEANER no. 3
- › Squeegees upon your choice from the catalogue
- › Heat gun
- › ROLLRIV roller
- › MALCOV HEXIS tool box

#### 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 embossed, clear films, which are coated with pressure-sensitive acrylic adhesive. For indoor or outdoor use (see chart 1).

	PCAMPGB	PCWOOD	VWOOD
Application to:			
Coloured films (like HX20000, etc.)	✓	✓	✓
Printable films	✓	✓	✓
Flat surfaces	✓	✓	✓
Moderated 3D surfaces		✓	
Properties:			
Antimicrobial	✓	✓	
Use:			
Indoor	✓	✓	✓
Outdoor			✓

Chart 1

#### CONTENT

- 1. RECOMMENDATIONS: ..... 2
- 2. PRELIMINARY TESTS OF THE FLAT APPLICATION SURFACES:..... 2
  - 2.1. Preliminary inspection of the substrate: ..... 2
  - 2.2. Tear-off test:..... 2
  - 2.3. Outgassing test: ..... 2
  - 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. To moderated 3D surfaces: ..... 4
- 5. CLEANING AND MAINTENANCE OF THE FILM: ..... 6
- 6. REMOVAL METHOD:..... 6

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 YOUR TARGET 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.

When covering flat and moderated 3D surfaces:

To avoid unexpected outcomes, always assume that every substrate is dirty and needs to be cleaned prior to any application. (cf. chapter 3).

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. Also make sure of the film's deformation limits and always follow the instructions given in the technical data sheets available on our website at [www.hexis-graphics.com](http://www.hexis-graphics.com).

## 1. RECOMMENDATIONS:

- › Optimal adherence of the laminates is obtained after 24 hours following application.

## 2. PRELIMINARY TESTS OF THE FLAT APPLICATION SURFACES:

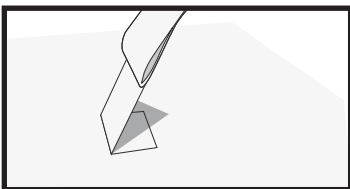
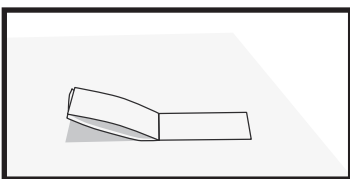
Before proceeding with any application, the installer must first inspect the substrate and the paint to which the film will be applied.

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

#### 3.2.1. Clean surface appearance:

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.

HEXIS'O  
Cleaner and  
degreaser



#### 3.2.2. Soiled surface appearance:

Clean the substrate with a cloth soaked with the powerful cleaning agent ADHESIVE REMOVER (product no. 1) to remove adhesive residues and other contaminants (diesel, oil, tar, grease, graffiti traces, etc.).

- ▶ 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 ADHESIVE REMOVER (product no. 1).
- ▶ For surfaces soiled by stubborn contamination, spray the cleaning agent directly onto this area and clean it with an abrasive sponge.

Adhesive Remover  
Powerful cleaning  
agent



Let it work for a few minutes. Spray the ADHESIVE REMOVER (product no. 1) again on the soiled surface, then wipe it with a clean cloth or squeegee.

**Final Cleaner**  
Finishing cleaning  
and degreasing agent

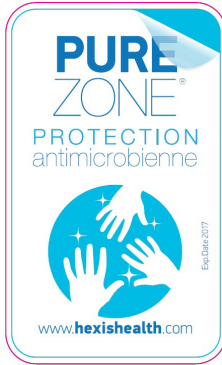


- › When the substrate is clean and dry, clean it again with the FINAL CLEANER (product no. 3).

#### 4. FILM APPLICATION:

Structured laminates must be applied according to the dry method.

##### 4.1. PURE ZONE® hologram logo:



HEXIS supply PURE ZONE® holograms so that you can label surfaces protected by structured antimicrobial laminates (PCAMPGB and PCWOOD) 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 PCAMPGB or PCWOOD.

##### 4.2. By laminating:

Due to the highly structured surface of the embossed laminates, some bubbles may appear and remain underneath the film during lamination.

The appearance of the compound can be enhanced by optimising the following lamination parameters:

- Ensure maximum pressure between the lamination cylinders.
- Set a slow lamination speed.

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

- › After installation, the final appearance can be improved by heating the film to +60 °C (140 °F) and by applying it using a ROLLRIV foam roller.

##### 4.3. To moderated 3D surfaces:

The following instructions concern the application of either the film alone or a structured 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:

Please follow the instructions below for covering a horizontal table or tray surface and its edges.

- › Put on gloves.
- › Prepare a piece of film slightly larger than the surface to be covered, while taking into account the parts to be folded over the edge of the tray.

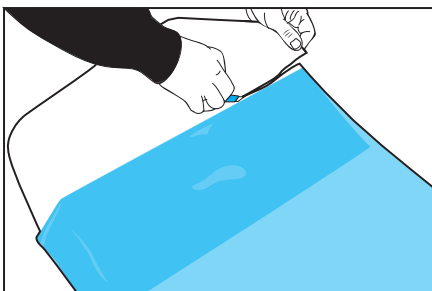


Figure 01

- › Remove approximately 10 cm (4 in.) of the liner. (FIG. 01).

- › Start the film application from one of the edges of the horizontal table or tray surface. (FIG. 02)
- › 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 vinyl application, to the complete surface of the horizontal table or tray, moving the squeegee as described above.

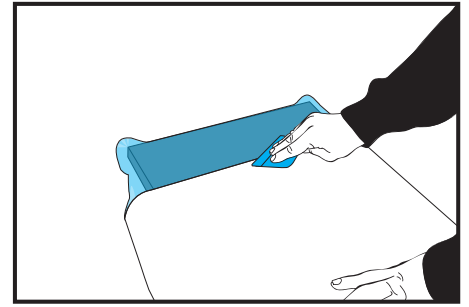


Figure 02

- › For perfecting the finish of the compound and removing remaining air bubbles: heat to 60 °C (140 °F) and apply the ROLLRIV foam roller over the entire film surface.

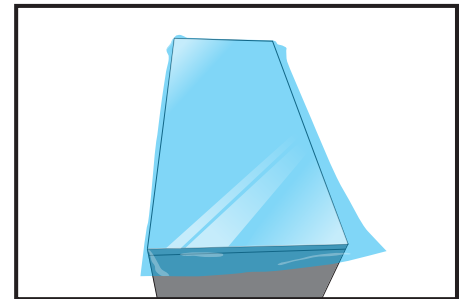


Figure 03

- › Once the application to the horizontal surface is finished (FIG. 03), proceed with the cuts to wrap the table edges.

- › Diagonally cut the film starting from the corner of the table. (FIG. 04)

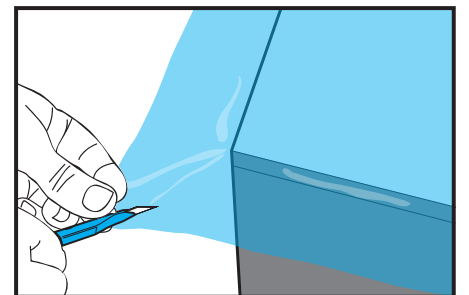


Figure 04

- › Apply the film to one of the table's edges by folding the film edge over the perpendicular angle. (FIG. 05)

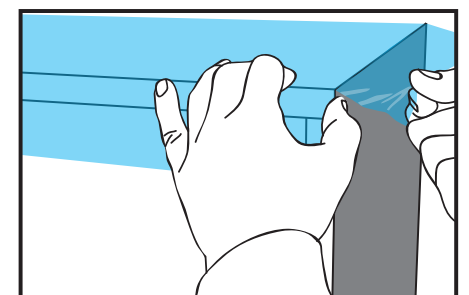


Figure 05

- › Cut any excess material by leaving only approximately 1 mm to 2 mm (0.04 in. - 0.08 in.), (FIG. 06) then cover the adjacent edge.

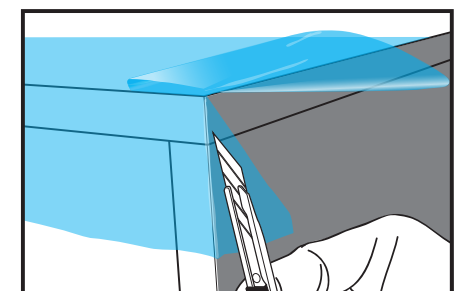


Figure 06

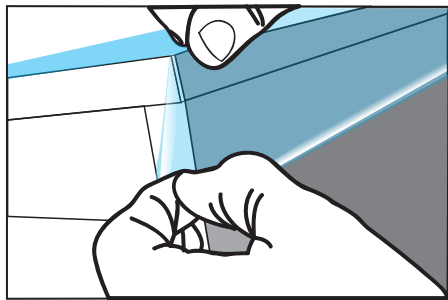


Figure 07

- › Apply the film to the second edge and wrap the corner with a slight overlap of both films. (FIG. 07)

- › 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 to 2 cm (0.39 in. to 0.79 in.) under the horizontal plate.

## 5. CLEANING AND MAINTENANCE OF THE FILM:

**!** However, 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 devices and cleaning agents, detergents or standard products currently used in healthcare environments.

*The antimicrobial activity of the PCAMPGB and PCWOOD films is maintained, even after 365 cleanings with water, alcohol or a cleaning / disinfectant product (ANIOSURF type (ANIOS Laboratories)).*

## 6. REMOVAL METHOD:

Structured laminates feature a permanent adhesive and therefore their removal, when applied to flat surfaces, needs some attention. Nevertheless, by following the instructions below, the removal will be relatively easy.

- › 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.

*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 carefully heat and 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 ADHESIVE REMOVER (product no. 1) and rub the surface until all traces disappear.

*Before using any of our liquids, please refer to the technical data sheets available on our website at [www.hexis-graphics.com](http://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](http://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](http://www.hexis-graphics.com).

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