

## Preparation

### Tools and materials



1 Primer (PM02, PM04) 2 Brush 3 Cleaning solvent (alcohol, white gasoline or lacquer thinner) 4 Lint 5 Plastic applicator 6 Steel ruler 7 Torch 8 Stanley knife (45° angle) 9 Needle or pin 10 Measuring tape 11 Hair dryer 12 Other : sandpaper, putty stick, sealer, masking tape, gloves

### Cleaning and preparing substrate

Before installing the LG Hausys Interior Film, it is important to prepare the substrate surface and follow the specific instructions for each type of substrate, to ensure a high-quality, long lasting installation.

Substrate	Preparation method
General instructions	<ul style="list-style-type: none"> <li>- For better adhesion and finish, scuff uneven surface with sandpaper or apply putty to make it flat.</li> <li>- It is recommended to use a good adhesion, hard-type putty.</li> <li>- In case you have to cover the whole surface with putty, sand it 2 to 3 times after dry to make it flat.</li> <li>- In case you are only touching up patches, try to use putty of same colour of the substrate.</li> </ul>
Wood products	<ul style="list-style-type: none"> <li>A. Scuff the surface with sandpaper.</li> <li>B. Apply putty on uneven area and smooth with sandpaper. Clean surface with solvent.</li> <li>C. Coat with the designated primer 2 or 3 times allowing to dry after each coat. Adhere film after complete primer dry for over 30minutes(PM02-Solvent type). Adhere film after complete primer dry for over 2hours(PM04-Water type).</li> </ul>
Untreated steel, electro-galvanised steel	<ul style="list-style-type: none"> <li>A. Remove rust and stain with sandpaper first and clean the surface with solvent.</li> <li>B. Apply putty on uneven area and smooth with sand paper. Wipe out with solvent.</li> <li>C. Adhere film after complete primer dry for over 30minutes(PM02-Solvent type). Adhere film after complete primer dry for over 2hours(PM04-Water type).</li> </ul>
Aluminium, stainless steel, painted steel	<ul style="list-style-type: none"> <li>A. Abrade uneven and welded areas with sandpaper.</li> <li>B. Remove stain with solvent, apply putty on uneven and welded areas and smooth with sandpaper.</li> <li>C. Adhere film after complete primer dry for over 30minutes(PM02-Solvent type). Adhere film after complete primer dry for over 2hours(PM04-Water type).</li> </ul>

Substrate	Preparation method
PVC laminated steel	<p>A. Check that the surface is in good condition to avoid low adhesion and bubbling.</p> <p>B. Remove stain with solvent and apply primer.</p> <p>C. Adhere film after complete primer dry for over 30minutes(PM02-Solvent type). Adhere film after complete primer dry for over 2hours(PM04-Water type).</p>
Painted substrate	<p>A. Test paint type and condition for adhesion by pre-applying a small piece of film on the surface.</p> <p>B. Remove stain with solvent and make sure that the surface is not damaged.</p> <p>C. Apply putty on uneven areas and smooth with sandpaper.</p> <p>D. Adhere film after complete primer dry for over 30minutes(PM02-Solvent type). Adhere film after complete primer dry for over 2hours(PM04-Water type).</p>
Melamine laminates, polyester coated laminates	<p>A. Abrade the surface with sandpaper and remove stain with solvent.</p> <p>B. Adhere film after complete primer dry for over 30minutes(PM02-Solvent type). Adhere film after complete primer dry for over 2hours(PM04-Water type).</p>
Plastic	<p>A. Avoid substrates that contain any additives. Substrates such as flexible PVC, PP, Nylon and fluorine are especially not recommended.</p> <p>B. Remove stain with solvent.</p> <p>C. Priming is not necessary. Adhere film straight away.</p>
Mortar, limestone	<p>A. Finish with steel trowel after joints are filled with joint material to prevent cracks.</p> <p>B. Allow it to dry for a minimum of 3 weeks.</p> <p>C. Remove stain with sandpaper or wire brush and clean the surface.</p> <p>D. Coat surface with sealer and apply putty over the whole area for better adhesion.</p> <p>E. Adhere film after complete primer dry for over 30minutes(PM02-Solvent type). Adhere film after complete primer dry for over 2hours(PM04-Water type).</p>
Gypsum board, calcium silicate board, asbestos slate	<p>A. Fill voids with filler and apply putty after sealer coat.</p> <p>B. Abrade the surface with sandpaper and clean with solvent.</p> <p>C. Adhere film after complete primer dry for over 30minutes(PM02-Solvent type). Adhere film after complete primer dry for over 2hours(PM04-Water type).</p>

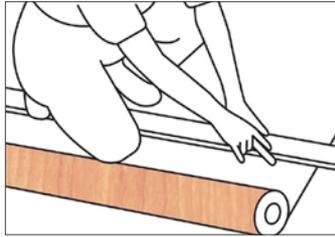
## Installation

### Substrate conditioning, storage and handling

Substrate	Preparation method
Substrate conditioning	<p><b>Temperature I</b> For unprimed surfaces to gain maximum adhesion. LG Hausys Interior Film should be installed to substrate with a temperature ranging between 15~25°C. If the substrate temperature is below 10°C, it should be heated by infra-red ray lamp, jet heater or hair dryer to ensure the correct temperature. If the recommended primer is used, it is possible to apply the film to substrate with a temperature of 10°C and over. Once the film is adhered to substrate, press the film to the substrate while heating it with a dryer.</p> <p><b>Dust and contamination I</b> It is vital that the work area is free from dust particles, as should particles be trapped between substrate and film, they will show through the surface of the film. Ensuring that the work area is well it will assist in identifying any contamination or air bubbles in the surface.</p> <p><b>Safety I</b> The primer and substrate sealant are combustible and inflammable and should not be used or stored near heat, sparks or naked flames. Work areas should be well ventilated.</p> <p><b>Application table I</b> The work table or bench should be covered with corrugated paper or a blanket to ensure the interior film is not damaged.</p>
Storage and handling	<p><b>Precautions I</b> LG Hausys Interior Film should be stored in a dry, cool, dark room. LG Hausys Interior Film has a shelf life of one year. Where possible when transporting LG Hausys Interior Film, it should be top loaded to avoid damage. Particular care should be taken in storage and handling in winter as the film can become hard and more susceptible to damage.</p>

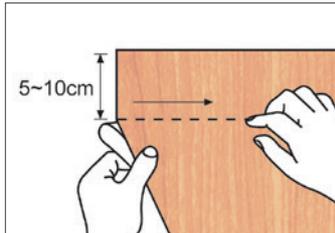
## Procedure for installation on flat areas

### Measuring and cutting



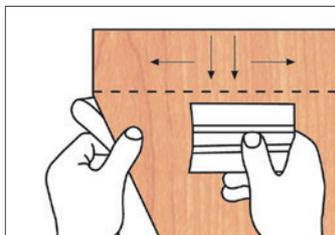
Lay the film on flat working table and measure the substrate. Always cut the film allowing for a 2-4cm over trim.

### Positioning



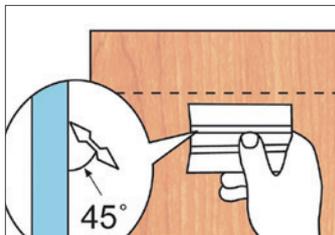
Start positioning by placing the film on the substrate. Peel back the release paper and fold it. Gently press with your thumb to gain enough adhesion to hold the film in place.

### Adhesion



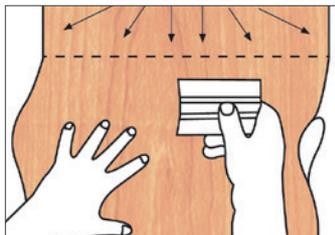
#### Step 1

To eliminate any air bubbles under the film start in the middle of the panel. With the plastic applicator apply pressure on the film to gain full adhesion. Start in the middle of the panel and work your way out to the sides of the panel in each direction. Hold the plastic applicator at a 45° angle to the substrate making sure you work the applicator in one direction only.



#### Step 2

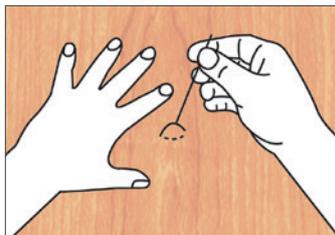
Pull back the release paper 300mm at a time. While pulling back the release paper, apply pressure with the plastic applicator working from the top to the bottom of the panel.



#### Step 3

Once the LG Hausys Interior Film is adhered, press the entire panel again with the plastic applicator working from the top of the panel to the edges. Particular attention should be paid to the edge of the panels.

### Air bubble releasing



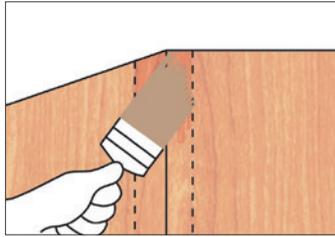
If during installation air should be trapped behind the film causing a bubble, gently strip back the film and reapply with the plastic applicator. Very small air bubbles can be released by pricking the bubble with a pin. Press out the entrapped air by moving your thumb toward the puncture.

### Finishing

Any excess over trim should then be trimmed off with a Stanley knife

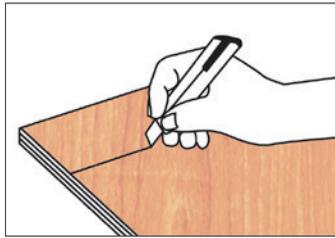
## Procedure for installation on corners Internal corner treatment

### Preparation



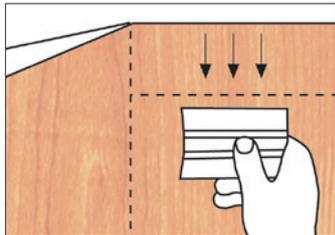
When LG Hausys Interior Film is applied to internal corners, firstly apply primer to the corner covering at least 50mm of each surface. This will ensure maximum adhesion.

### Cutting and Positioning



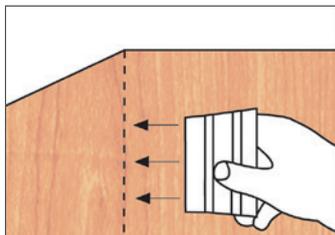
Follow the same method as for flat panels.

### Adhesion



#### Step 1

Apply the film from the widest section of the internal corner. Using the applicator, apply pressure to ensure the film does not bubble or drop. Press and squeeze along the corner.

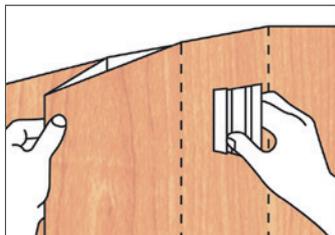


#### Step 2

When the temperature is under 20°C, apply the film while heating it evenly. Do not over heat as this could cause the film to wrinkle.

#### Step 3

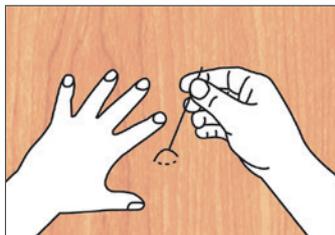
Once the film is installed into the first section of the corner gently pull and pull the film and apply pressure to the remaining corner section.



#### Step 4

Once installed, apply pressure to the entire section using the plastic applicator, especially the corner section.

### Air bubble releasing

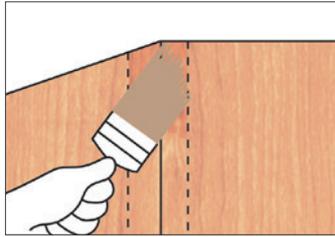


Follow the same procedure as for flat areas.

### Finishing

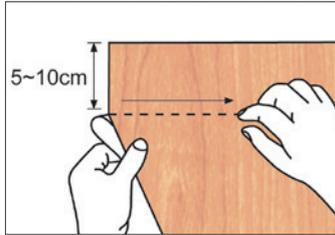
## External corner treatment

### Preparation, measuring and cutting



Follow the same procedure as detailed for internal corners.

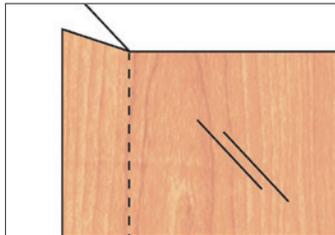
### Trimming



Trim film to the desired width including the corner over trim.

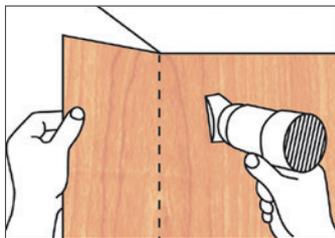
Follow the same procedure as for flat panels.

### Adhesion



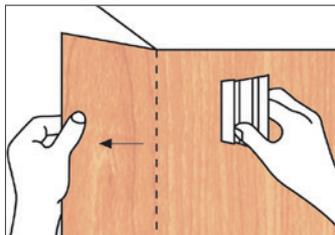
#### Step 1

Apply the film from the width section bordering the external corner. Do not strip off the release paper of the narrower corner section.



#### Step 2

Using the applicator, apply pressure to ensure the film does not bubble or drop. Press and squeeze along the corner. When the temperature is below 20°C, apply the film while heating it evenly. Do not over heat as this could cause the film to wrinkle.



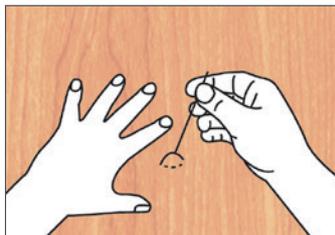
#### Step 3

Using the same method as for flat panels, remove the release paper 200 to 300mm at a time. Hold the film firm while applying pressure with the applicator.

#### Step 4

Once installed, apply pressure using the plastic applicator to the entire section, especially the corners.

### Air bubble releasing

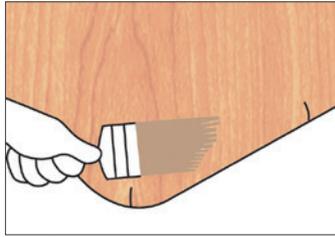


Follow the same procedures as for flat areas.

### Finishing

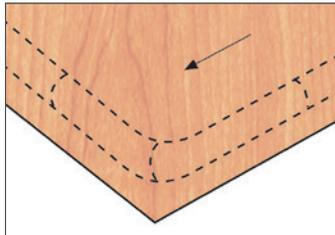
## Treatment for three-dimensional curved surfaces

### Preparation



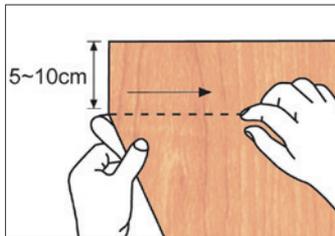
Once any bullnose or curved edges have been shaped and sanded, apply primer to the curved surface and reverse side. If the primer is easily absorbed by the substrate, reapply the primer on the former has dried.

### Measuring and cutting



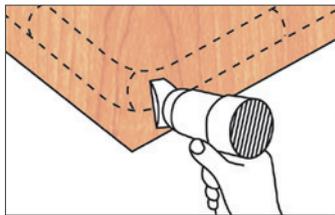
Cut the film 100mm larger than the substrate size.

### Positioning



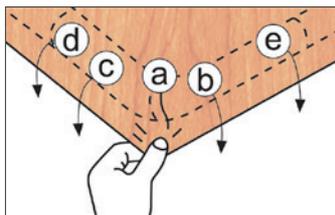
Follow the same procedure as for flat surfaces.

### Adhesion



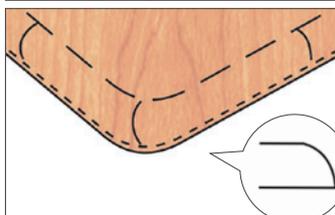
#### Step 1

Apply the film on flat area first. Gently heat the film that will be applied to the curved surfaces with a dryer. After the film has softened, it is then wrapped by pulling the film gently around the curve.



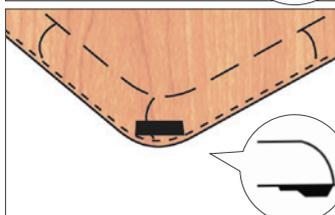
#### Step 2

After the film is softened, hold the (a) part with the fingers and pull in the direction of the arrow. Follow by pulling the (b), (c), (d) and (e) parts working away from the corner. Ensure that enough pressure is applied to avoid any air bubbles or so that the film does not crumple.



#### Step 3

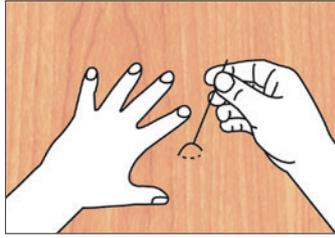
To prevent the edge of the film from peeling off and shrinking, ensure the film is covering 20 to 30mm of the reverse side of the panel.



#### Step 4

Cut off any excess of rolled up film with a Stanley knife. Apply pressure again to the entire panel, especially at the curved edge. To ensure the film does not shrink from the corner, apply a staple on the corner.

## Air bubble releasing



Follow the same procedure as for flat surfaces.

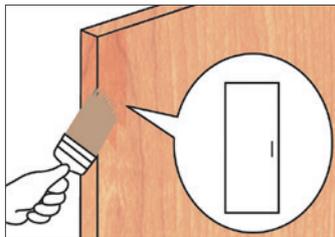
## Finishing

### Procedure for installation on door surfaces

#### Flush panels and smooth doors

- LG Hausys Interior Film can be applied to doors either in the factory after manufacture or on the work site prior to the final installation of the door.
- The door frame should be installed and any fitting adjustments should be made prior to applying the LG Hausys Interior Film.
- LG Hausys Interior Film can be installed whilst the door is hanging. However, it is easier to remove the door from the frame and lay the door flat on a working table and apply the film whilst the door is horizontal.
- Remove any hardware such as locks handles etc and replace at the completion of work.

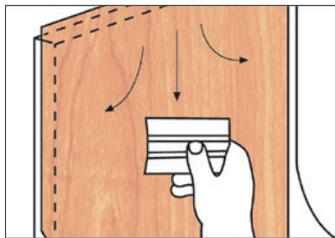
#### Preparation



#### Step 1

Remove any dust, oiliness or surface contaminants on the substrate with a lint free cloth and thinners. Any surface imperfections should be removed with sandpaper.

#### Adhesion

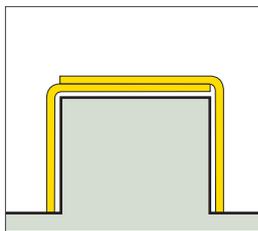


#### Step 2

After cleaning the substrate, apply primer particularly to the top and edges of the door.

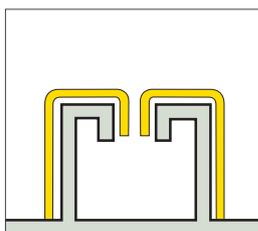
Install as per instructions for flat areas.

#### Flush panel

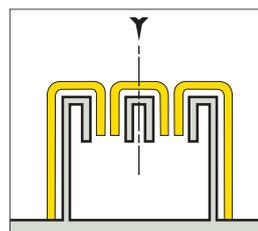


(Fig. A)

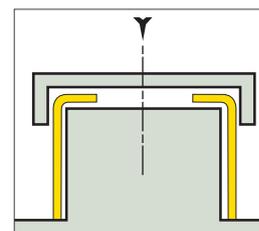
Apply the film by overlapping both sides on the joint at the top of the door.



(Fig. B)



(Fig. C)



(Fig. D)

### Fig. B

Apply primer to the substrate of the door frame using the applicator. Press in the film as firmly as possible with the plastic applicator to a depth of at least 5mm.

### Fig. C

Detach the center joint by unscrewing the wood screw. This can be replaced after the film is installed. Using the applicator press in the film as firmly as possible to a depth of at least 5mm, similar to figure B.

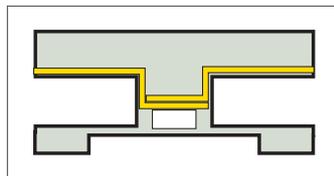
### Fig. D

Remove the casing from the top and then apply the film allowing for a 30mm overlap. Reinstall the casing once the film is installed.

## Procedure for installation on door surfaces

LG Hausys Interior Film can be applied to partitions either in the factory after manufacture or on the work site prior to the final installation of the partition.

### Preparation

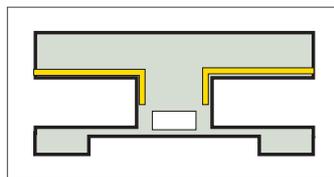


Remove any dust, oiliness or surface contaminants on the substrate with a lint-free cloth and thinners. Any surface imperfections should be removed with sandpaper.

### Priming

Apply primer to the edge, joints and overlapped part of the film.

### Installation

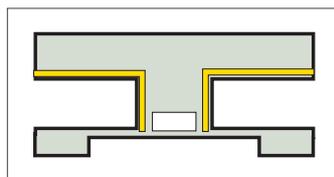


If the film is being installed at the work site, install as detailed in figure A and B.

A

### Fig. A

To ensure a good quality join finish, apply the film by overlapping at the partition join.

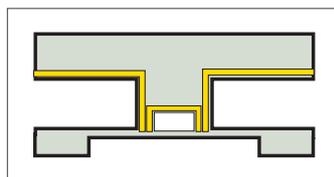


### Fig. B

It is important that the film is well adhered to the top section of the partition so that it does not peel off. Ensure that at least 10mm of film is adhered to the top of the partition.

B

### Factory installation

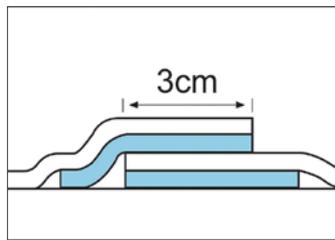


If the film has already been applied at the factory, prior to delivery to the work site, simply install the partition as per figure C and D.

C

## Procedure for installation on partition walls

### Measuring and cutting

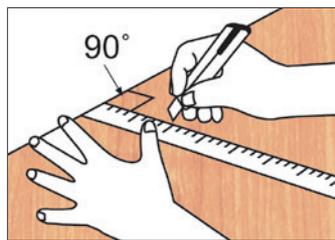


A

When butt joining, LG Hausys Interior Film leave 50mm of the release paper on the back of the film.

Leave a minimum of 30mm over trim on both sides of the joint so that they can be overlapped.

To minimize any shrinkage at the joint, leave the LG Hausys Interior Film for 24hours before cutting back the over trim.

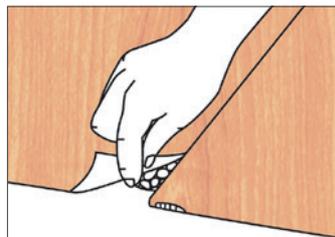


B

Place a ruler on the center of the joint.

Carefully slice through both pieces of the film.

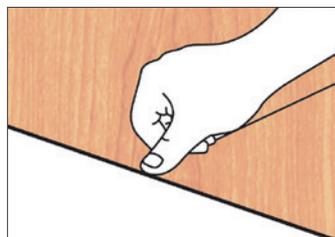
The knife blade should be at right angles to the film.



C

Remove the cut fragment of the film.

Also remove any dust from the surface of the substrate.

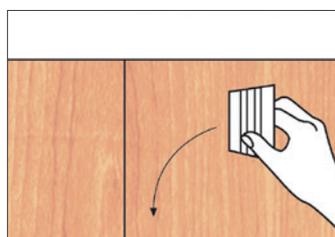


D

Strip off the release paper as per figure C.

Once both edges of the film are butt together, press into place with the tip of your finger.

### Finishing



E

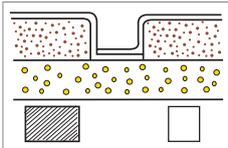
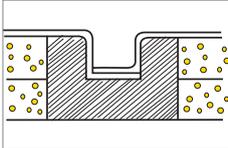
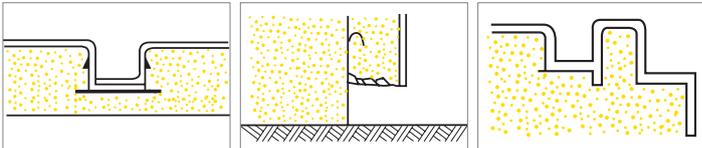
Once satisfied with the quality of the butt joint, press down with the plastic applicator.

## Installation procedure for walls

### 1. Application on space left joint

#### - Characteristics

- A. Prior or installation of the LG Hausys Interior Film check the roll for damage.
- B. It is also important to check the rolls for colour match prior to installation.
- C. It is also important to install the film with any patterns, embossing or textures running in the same direction.

Item	Requirements
Calcium silicate insulator or flexible board	 <p>When using calcium silicate insulator or flexible boards, cut with a panel saw ensuring all cut edges are smooth. When joining, allow a 6mm deep by 6mm wide gap between the panels.</p> <p>Fig. A</p>
Gypsum plaster board	 <p>Install a kiln dried timber batten at the joints as detailed in figure B. Do not join the film directly onto the edges of the plaster or gypsum board. Ensure all fixing screws and nails are sealed with putty.</p> <p>Fig. B</p>
Mortar	<p>Fill all joints with PVC filler to ensure joints do not crack. The walls should be smooth and free from defects. smooth out any uneven wall with a steel trowel or spatula as per figures C, D and E. Thoroughly wash down wall prior to installation.</p>  <p>Fig. C      Fig. D      Fig. E</p>

### 2. Flat joining application

- A. Prior or installation of the LG Hausys Interior Film check the roll for damage.

#### - Joining specifications

Overlapping is important as substrates such as flexible board and gypsum plaster can expand and contract. Overlapping at the joints will ensure that the joints are less noticeable should panels contract.

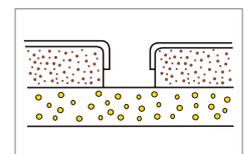


Fig. F

### 3. Installation for narrow joints

If the joint between panels is under 4mm, the following installation method should be used.

#### - Joining specifications

As it is difficult to gain a neat narrow joint, it is advisable to install a joiner or moulding over the joint.

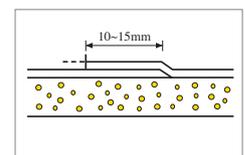


Fig. G

### 4. Overlapping joint applications

A simple method of joining is to overlap the film 10~15mm, applying primer to the lower film.

## Installation precautions for Dynamic Metal series

1. Ensure ambient room temperature is above 12°C.
2. Take care to apply the film only once as repeated repositioning of the film can cause delamination.
3. Avoid installation to three-dimensional curved surface as stretching of the film can cause colour and pattern variation.
4. The surface of the substrate must be clean and smooth as any imperfections in the substrate may show through the high gloss metallic surface.
5. Wrap the plastic applicator in a lint-free cloth so that it does not scratch the surface.

### Physical properties

Dynamic Metal film is produced using advanced quality control, however there may be some colour variation between production batches. Prior to installation, ensure that the colour of the substrate does not affect the colour of the film. Ensure the substrate is clean and smooth so that imperfections do not show through the finished product.

## Substrate preparation

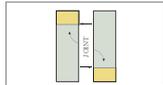
Substrate	Wood, Veneer, Hard board	Gypsum board, Calcium Silicate board, Asbestos Plate	Overlapped Chlorinated Copper Plate	Mortar	Painted steel	Aluminum, Stainless steel
Surface preparation	Punch nails			Ensure walls are dry	Remove rust	
Sealer coating	-	-	Sealer	Sealer		
Application putty	EP putty, Moisture resistant putty, Cross putty			EP putty, Moisture Resistant putty, Cross putty, Board putty	Polyester putty, EP putty	
Surface grinding	Sand paper				1) Uneven, welded area-grinder 2) Flat area-sandpaper	
Surface Cleaning	Brush, Alcohol, thinner					
Primer Coating	<b>(PM02-Solvent type)</b> · Dilute primer and thinner by 1:1 on overall. · Use undiluted primer on edge. · Adhere film after complete primer dry for over 30minutes.			<b>(PM04-Water type)</b> · Dilute primer and water by 1:1 on overall. · Use undiluted primer on edge. · Adhere film after complete primer dry for over 2hours.		

## Other installation precautions

### When two sheets of film are applied by overlapping

Item	Requirements
Priming	Apply the primer (PM-04) on lower film and overlap the top film after a complete dry.
Embossed patterns	It is not possible to join embossed by dynamic patterns using the overlapping method. Please contact your distributor for further information.

### When two sheets of film are applied by overlapping

Item	Requirements
Board sizes	Where possible avoid horizontal joints in the substrate and using large sheet sizes that suit the ceiling height. If it is necessary to join substrate panels, alternate the horizontal joint at the top and bottom as per detail. 
Substrate movement	To help eliminate movement in the substrate and cracking of fillers or putty, ensure the joints are well nailed.

### Direction of colour design and embossing

The embossing has a delicate directional pattern. Take care to install panels in the same direction, as if they are installed in opposite directions this can give the appearance of colour variation.

### Primer application

When applying the primer to installed walls, apply it to prime alternated panels so that overlapping film does not become adhered to adjoining panels prior to being installed into the joints.