



Covid-19 in-store signage printing guide

Keep helping your community with HP Latex signage applications



Applications

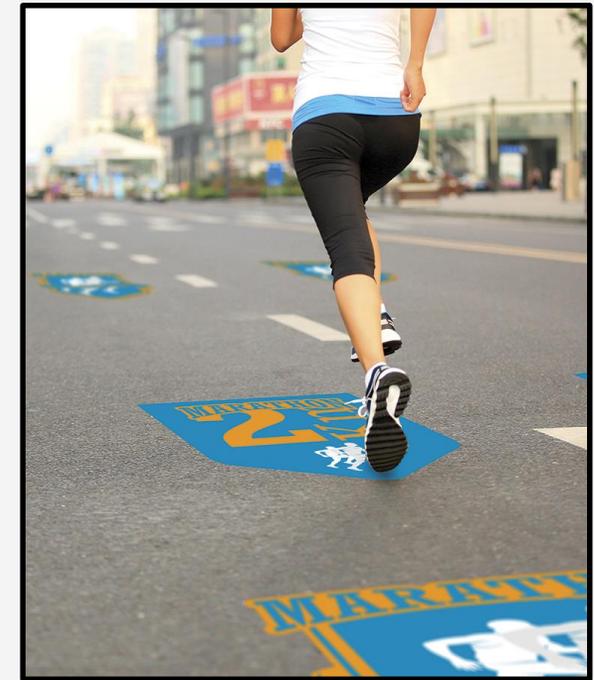
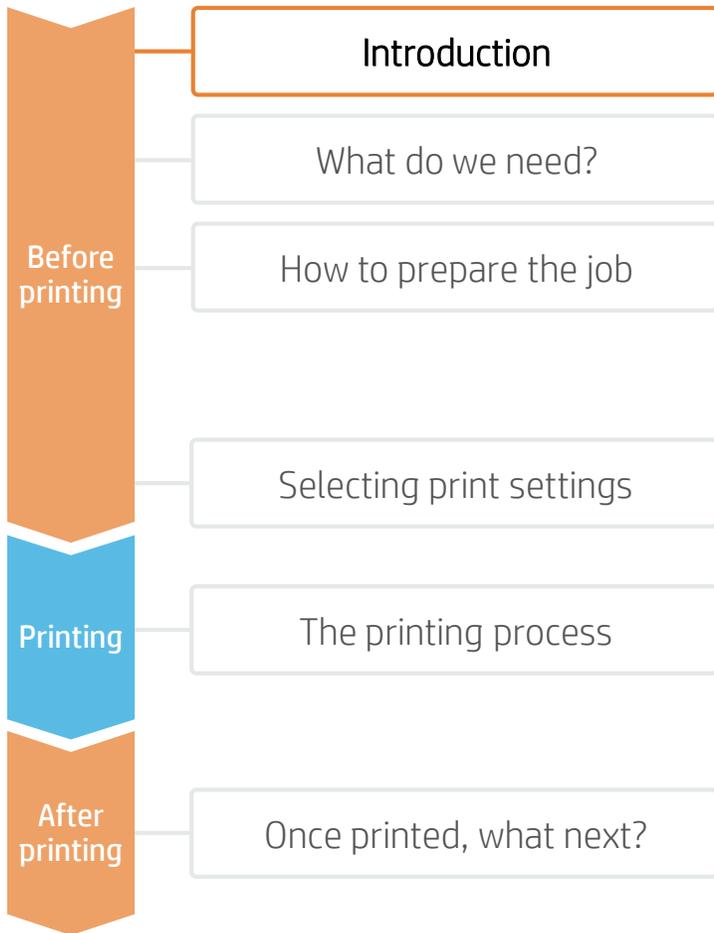
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- 4. How to print separation panels with self-adhesive vinyl... 35

How to print Floor Graphics

This document will explain how to print and install floor graphics for indoors and outdoors.



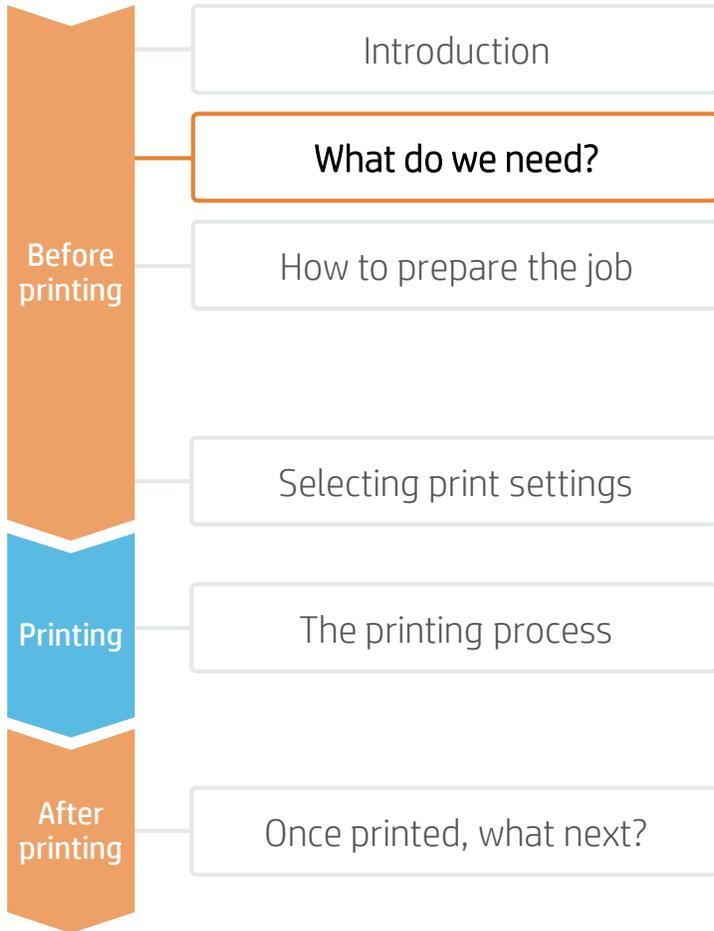
Introduction



Finding their use in **indoor** as well as in **outdoor** environments, floor graphics are a great way to capture the attention of the public. They are usually made of a printed **self-adhesive vinyl and an anti-slippage film over-laminate** on top. The main differences between them are the types of adhesives and the durability of the over-laminate applied, which all depend on the desired longevity of the application and the external conditions where it is going to be used.

Is waiting for the ink to dry before laminating boring? Contrary to those of eco-solvent technology, prints done with HP Latex Technology come out completely dry and ready for lamination. That means you can laminate instantly! This addresses one of the main concerns about productivity when producing floor graphics.

What do we need?



Substrate



Film Laminate



Software tools (RIP, image editor, etc.)



Heat gun



Printer



Film Laminator



Cutting device



Water + soap

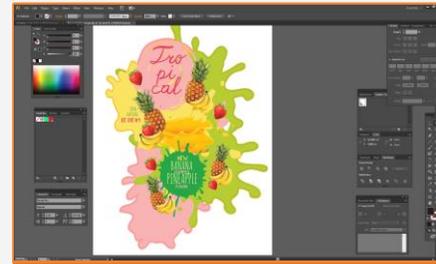
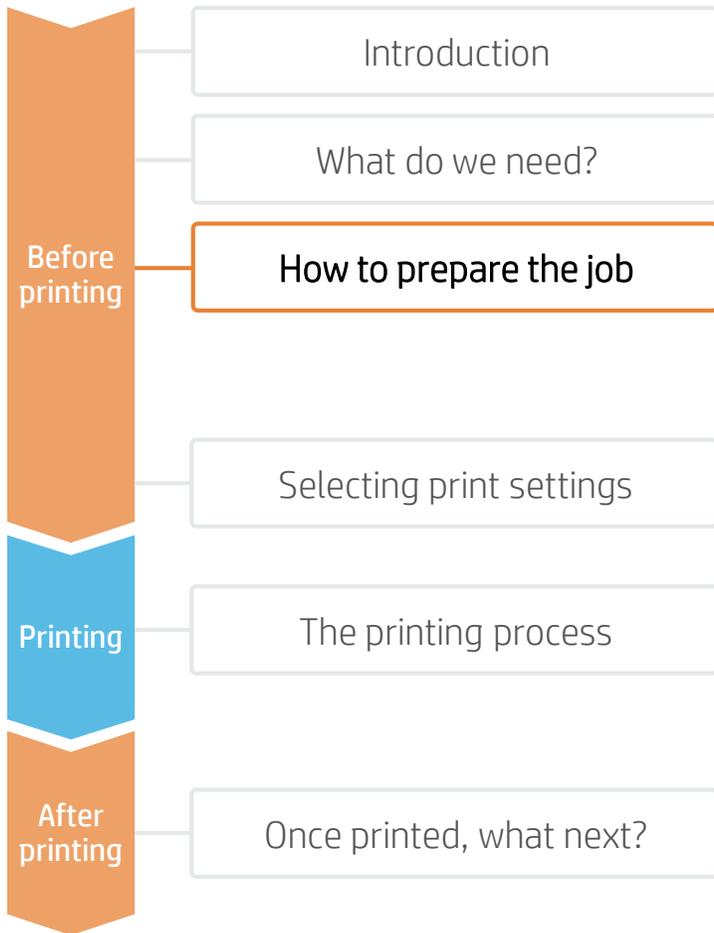


Squeegee



Brush

How to prepare the job



1. Graphic design

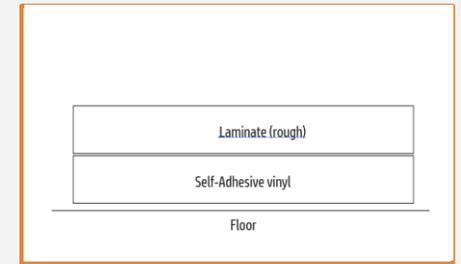
Create the graphic using standard design tools (Photoshop, Illustrator...)

NOTE: It's always recommended to provide adequate bleed values to the images on their cut contours to compensate for possible cutting misregistrations.



2. Add cutting marks

Depending on the type of image, design or shape, add cutting lines and marks on signs to be cut using an automatic cutter.



3. Substrate considerations

Floor graphics are normally composed of a substrate base (generally a self-adhesive vinyl on which the sign is printed) and a laminate (to protect the sign and to provide anti-slippage).

There are many product choices. Read the following considerations.

3.1 Adhesive compatibility

There are self-adhesive vinyls that have been specifically designed for indoor or outdoor floor use. The latter ones have a more tacky adhesive.

Check that your substrate (and its adhesive) are adequate for the floor on which the sign will be applied.

3.2 Short term substrates 3.3 Anti-Slip requirements

There are substrates for short-term use (1-2 weeks) that do *not* require lamination, as these substrates present surface roughness.

Check for durability requirements prior to committing to a big job.

Special safety regulations may apply for the area where graphics will be applied, like work spaces, schools, nurseries, public spaces....

European and American slipperiness classifications are normally regulated by DIN 51130, DIN51097 or ASTM C 1028 norms.

Check which slipperiness rating (R-value) is required for your particular application and select your substrate accordingly.

NOTE: To learn more about cutting, consult the following documents:

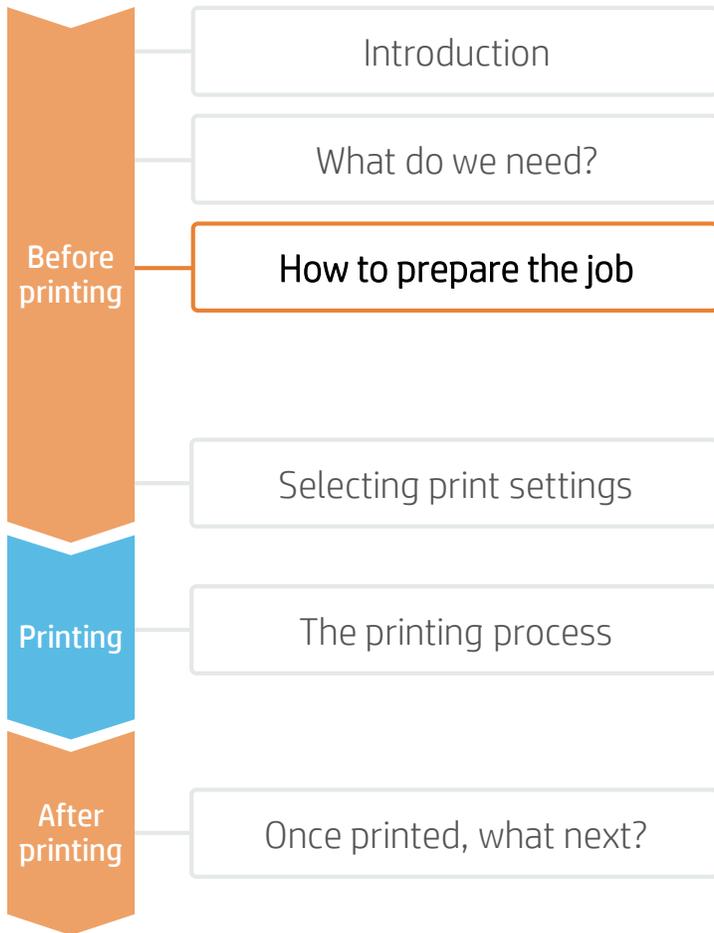
"Good practices to ensure correct cutting accuracy with HP Latex Print and Cut Solution"

<https://hpllatexknowledgecenter.com/applications/good-practices-ensure-correct-cutting-accuracy-hp-latex-print-and-cut-solution>

Cookbook on HP Latex Print and Cut Solution

<https://hpllatexknowledgecenter.com/applications/cookbook-hp-latex-print-and-cut-solution>

How to prepare the job



4. Tested substrates on latex platforms

The list below includes floor graphic solutions that have been tested on, at least, one latex printer.

Printable products

Product name	Subst	Thickness (microns)	Slip Certification (DIN51130)	Use
Neschen UV dot print'n'walk	PVC	200	R9 (Does not require laminate)	Indoor
3M 40C-10R/ 40C-20R/ 40C-114R Controltac	PVC	75	NA	Indoor
3M 48C-20R Envision	PVC-free	80	NA	Indoor
3M 3662-10	PVC	50	NA	Outdoor
Mactac streetRap	PVC	100	NA	Indoor / Outdoor

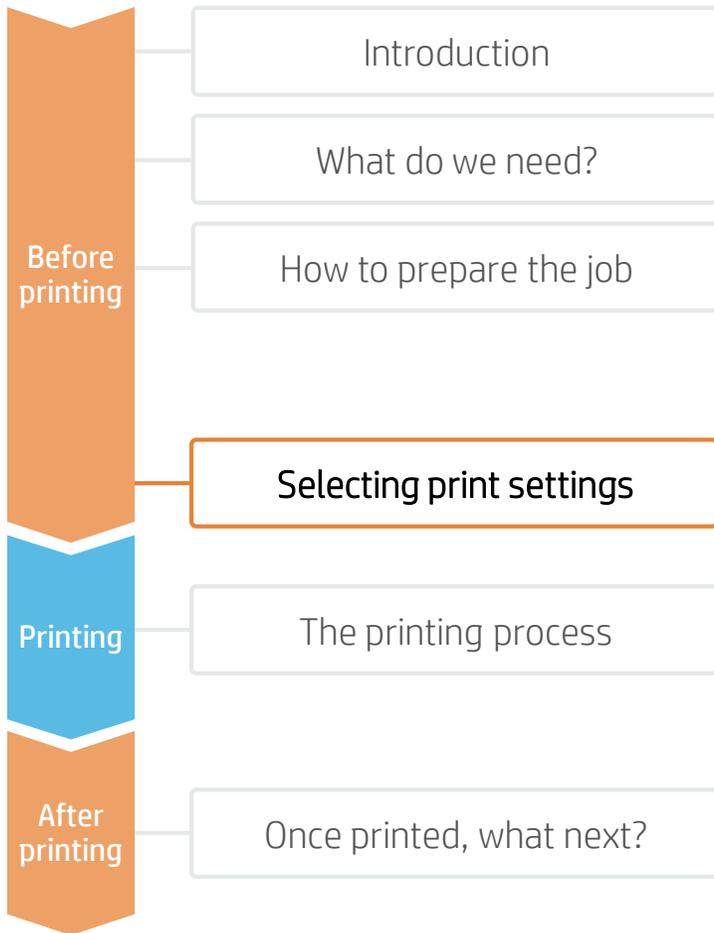
Protection (Laminate) Films

Product name	Material	Thickness (microns)	Slip Certification (DIN51130)	Durability / Other certifications
Neschen Filmolux easy clear sand	PVC monomeric	200	R9	Medium (6 months)
Neschen Filmolux Nippon Plus	PVC monomeric	200	R9	Medium (6 months)
Neschen Filmolux FGS	PVC Polymeric	185	R9	High (1 year) EN 14904 for sport areas
Neschen Filmolux Scratch	PET	130	R10	Short (1 month)
Neschen FGS R11	PVC	140	R11	Medium (6 months) DIN51907 Class A
3M 3645	PVC	200	R9	Indoors
3M 3647	PVC	500		Indoors and Outdoors. SRV 49 (EN1341), SRV 40 (EN1342)
Mactac Permacolor Floorgrip	PVC	150	R11	Indoor/Outdoor
Mactac Permacolor StreetLam	PVC	385	R12	Outdoor

Consult **HP Media Locator**: <https://www.printos.com/ml/#/homeMediaLocator> for more information.



Selecting print settings



Once the right printing and protection substrates are selected based on the application's requirements, we're almost ready to print.

First we need to select the right printing settings. These settings are found within the **substrate presets**.



Use different media presets based on the substrate being used



Self-Adhesive Vinyl substrate presets

Many Self-Adhesive Vinyl substrates have been tested at hp on different Latex printers. Substrate presets have been created for specific substrates and printers and are available to download from the HP Media Locator:

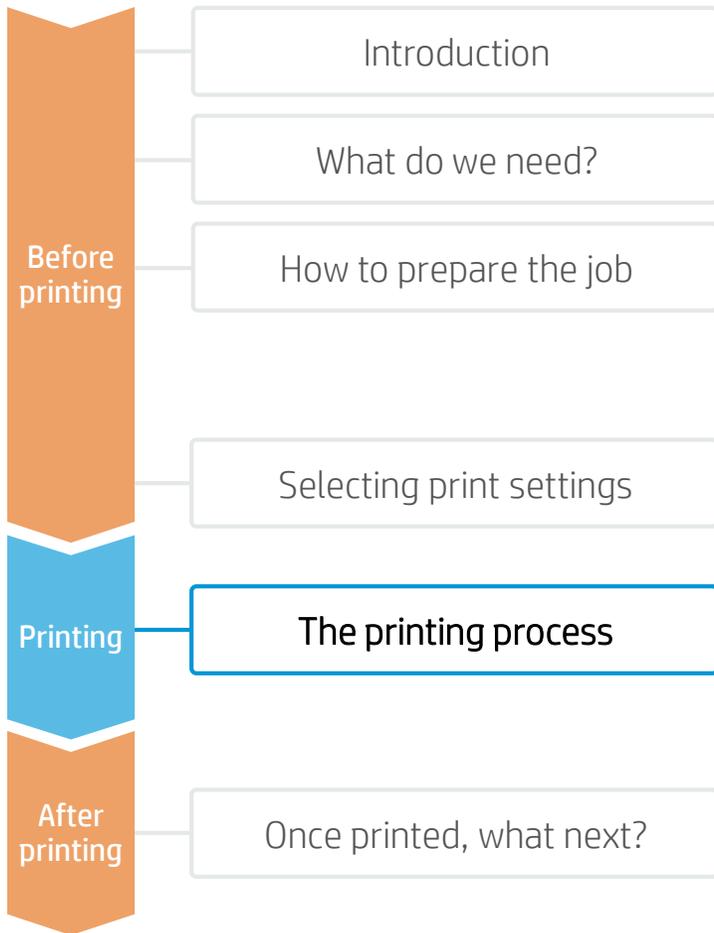
<https://www.printos.com/ml/#/homeMediaLocator>

Find the right profile by filtering for printer and substrate type.

If the substrate you need to print on has an substrate preset available, we recommend downloading, installing, and using it on your printer and RIP. If there is no substrate preset for the specific substrate being used, using a "Generic Self-Adhesive Vinyl" substrate preset may be a good starting point option.

Floor Graphics on Latex inks

The printing process



Rip the artwork after selecting the corresponding substrate preset for the Self-Adhesive Vinyl. Send the output to the printer's queue (L1500, L3X00, R-series) or directly to the printer (L1X0, L2X0, L3X0, L5x0).

Load the substrate on the printer as *Generic Self-Adhesive Vinyl* or use the specific preset previously downloaded.

Follow the loading process for your printer.

Use the take-up reel if needed. We recommend using it for large jobs.

Select the ripped job and drag it to the printer's queue (L1500, L3X00, R-series).

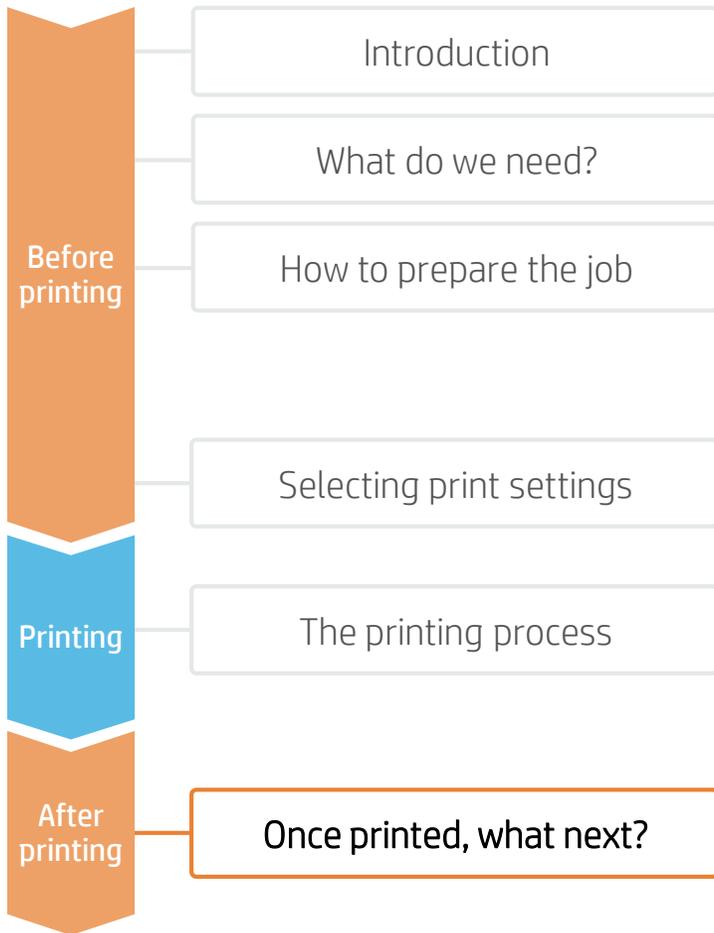


 **NOTE:** Regarding printmode selection: Select "**Frontlit**" modes (110-120 ink depending on the printer) to print most floor graphic applications.



Press print

Once printed, what next?



1. Handling Samples

Handle rolls with care.

It is recommended to use gloves to prevent accidental cuts, and also to avoid leaving fingerprints on the surface.



2. Laminate Samples

Most floor graphics need to be laminated using a film. This film is required to protect it and to provide anti-slippage. Use the lamination settings provided by the manufacturer.

NOTE: Lamination can be performed right after printing. You do not need to wait.

NOTE: We recommend storing laminated rolls with the laminate facing out.



3. Cut Samples

Place the sign on a table or in a roll cutter and cut the sign.

NOTE: To learn more about cutting, consult the following document:

“Good practices to ensure correct cutting accuracy with HP Latex Print and Cut Solution”
<https://hpllatexknowledgecenter.com/applications/good-practices-ensure-correct-cutting-accuracy-hp-latex-print-and-cut-solution>



4. Prepare the Floor

Remove dust particles using a broom and clean the floor using an all-purpose cleaner. Remove any remaining contaminant with an industrial-strength cleaner. Clean an additional area around where the sign will be applied.

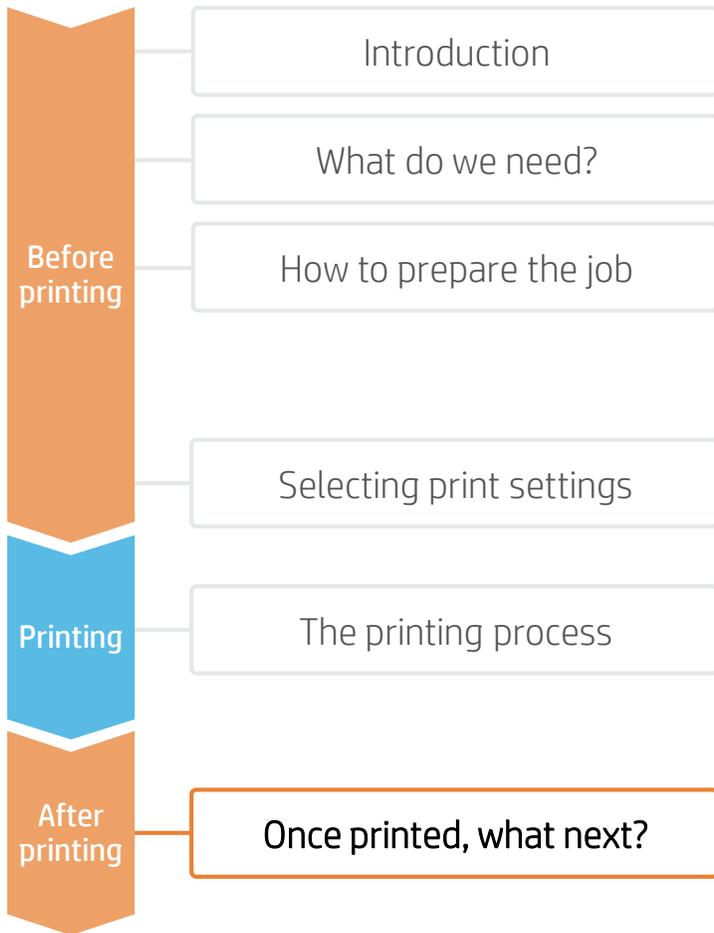
NOTE: Any dust or wax residue may affect adhesion performance.

5. Application Considerations

Floor graphics, when wet, may become slippery, so to avoid personal injury due to slipping, please take measures to minimize or prevent the floor graphics from getting wet. For example, place floor graphics far enough away from entryways that they stay dry, use doormats to reduce moisture at entryways, and clean up water, spills or other liquids immediately.



How to prepare the job



6. Application on Smooth Floors

Remove 25 cm (10") of the liner on one edge of the sign. Apply the sign using a soft squeegee (like a 3M PA-1 Blue or Comply Squeegee), removing the liner as the sign is applied.

NOTE: To prevent sign lifting we recommend to apply signs on low traffic zones.



NOTE: To prevent the sign from lifting, we recommend not leaving sharp corners. Create round corners with a cutter and a coin if not done previously.



7. Application on Rough Floors

To get good adherence on rough floors, the vinyl needs to perfectly conform to the floor.

Apply the vinyl by hand without pressing it down. Then use a heat gun to soften it, and with the help of a foam roller, press the sign down while the vinyl is still soft to help it conform to the shape of the floor.

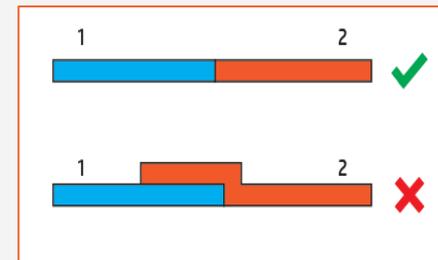


8. Cleaning

Follow the recommendations provided by the media manufacturer. If samples will be cleaned with chemical products, it is mandatory to laminate them.

9. Signs with Multiple Panels

When applying big signs that require tiling applications, we recommend not overlapping the different sign parts. To prevent the sign from lifting, we recommend the butt seam application technique.



Floor Graphics on latex inks

Learn more at: www.hplatexknowledgecenter.com

You can find templates to use at HP Application Center.

- Open the Roll-ups app at www.hpapplicationscenter.com.
- Select the “**Objects**” tab from the left-hand navigation bar.
- For editable social distancing and general hygienic themed templates and design illustrations to create your own floor graphic, select the “**COVID-19**” folder and select the required sub-folder.

Partnership:

RIPS and Print preparation:



SAi

Finishing:



Legendary Performance





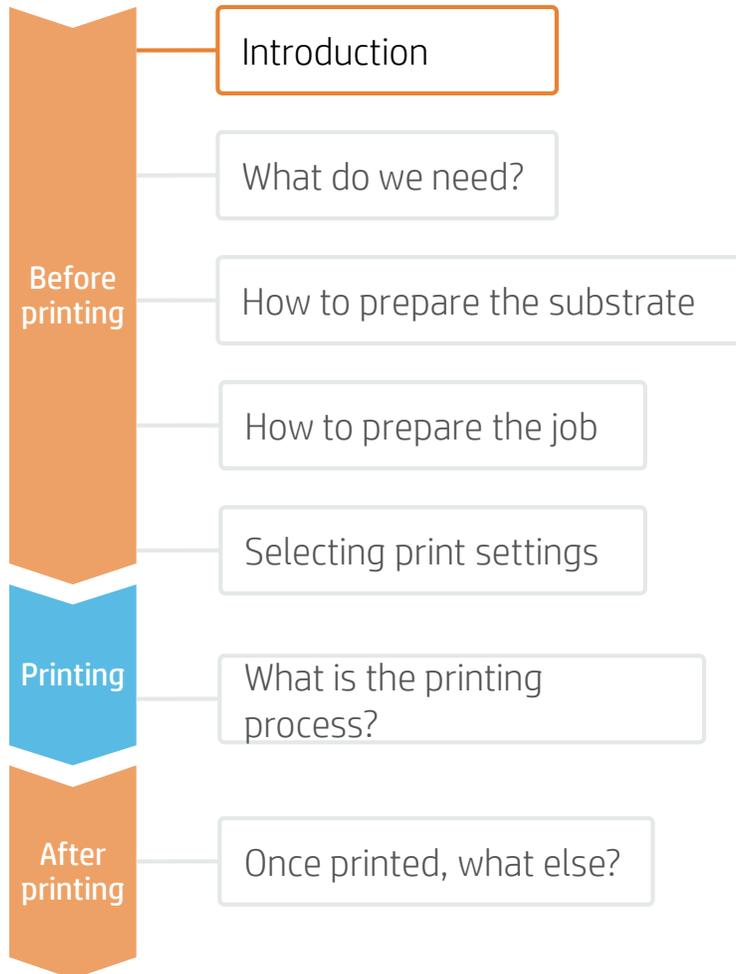
How to print Roll-up Banners

This document will explain how to produce Roll-up Banners



How to produce Roll-up Banners

Introduction



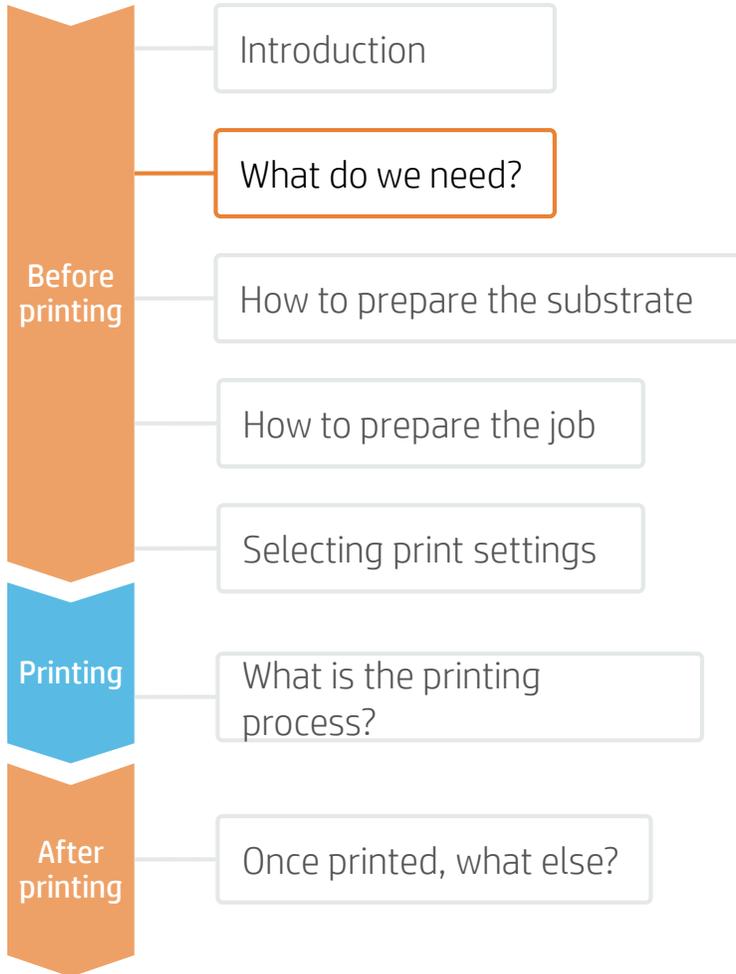
Easy to install, move around, transport and store, Roll-up Banners are a great way to create impactful Signs. While having a considerable size when installed, they can easily adapt to changes, as they can be placed in the most strategic locations at any given moment.

HP Latex Technology offers the possibility to create Roll-up Banners with all types of large format materials, including PVC- and PVC-free banners, like Polypropylene and Polyester fabrics.

How to produce Roll-up Banners



What do we need?



Substrate
PVC Banner
PP / PET Film
Textile



HP Latex Printer



Software tools (RIP,
image editor, etc.)



Roll-up mechanism

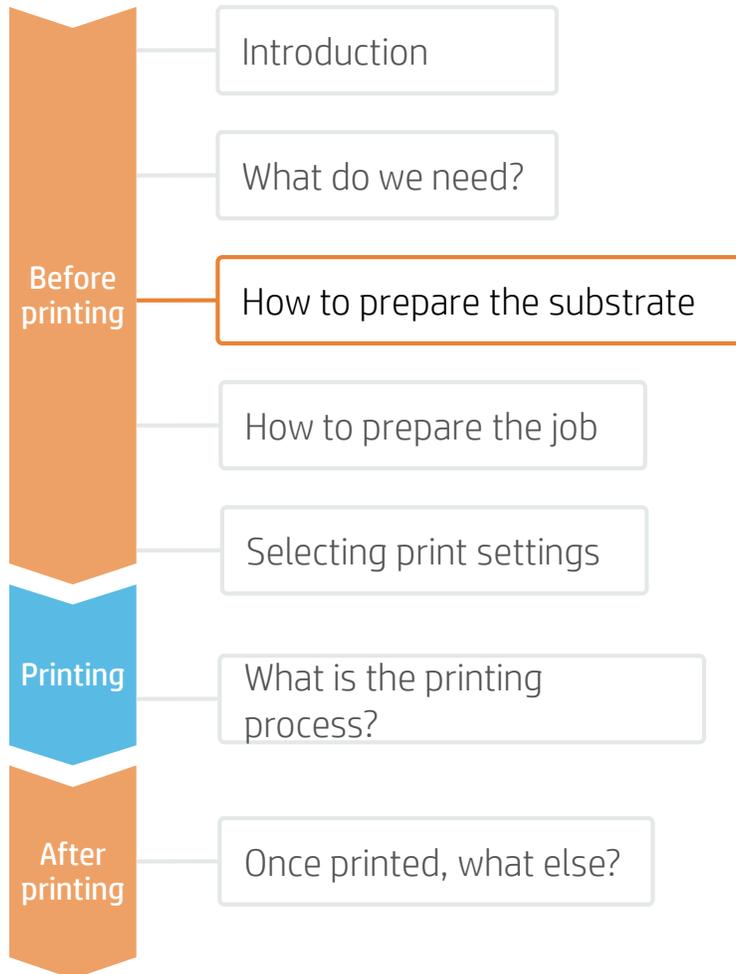


Automatic Cutter
or Manual Cutting tools



Liquid or Film
Laminate
(Optional)

How to prepare the substrate



1. Select Substrate Type

☑ The most common types are:

- PVC Banners
- PET Films
- PP Films
- Textiles

Considerations: Durability

For long term applications and/or if the prints will be cleaned or sterilized regularly:

- Consider laminating the prints for the highest resistance to chemicals such as: alcohol, ethanol and Windex.
- PVC Banners offer the best durability on un-protected prints.
- For PET & PP materials, solvent-based coatings offer better durability than water-based ones.

Considerations: Roll Size

Choose the media width that best fits your Roll-up mechanism. Consider using a slightly wider roll than the desired sign to apply a safety margin.

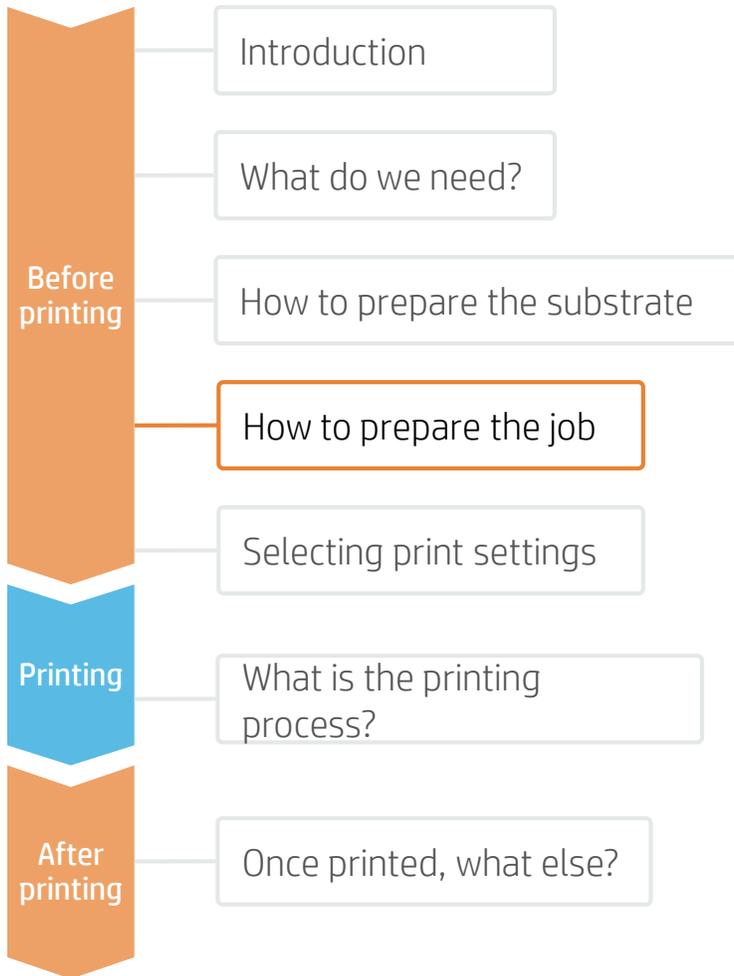
The most popular sign widths are 85 cm (33") and 150 cm (59").
The most popular sign length is 200 cm (79").

Considerations: Opacity

To prevent rear light sources from affecting the optical saturation and readability of the signs, light-blocking materials are recommended. For example: gray-back films or block-out banners.

How to produce Roll-up Banners

How to prepare the job



1. Create the Image

Create the graphic using standard design tools (Photoshop, Illustrator...)

Make sure the job size fits the characteristics of your Roll-up mechanism.



2. Add Cutting Marks (optional)

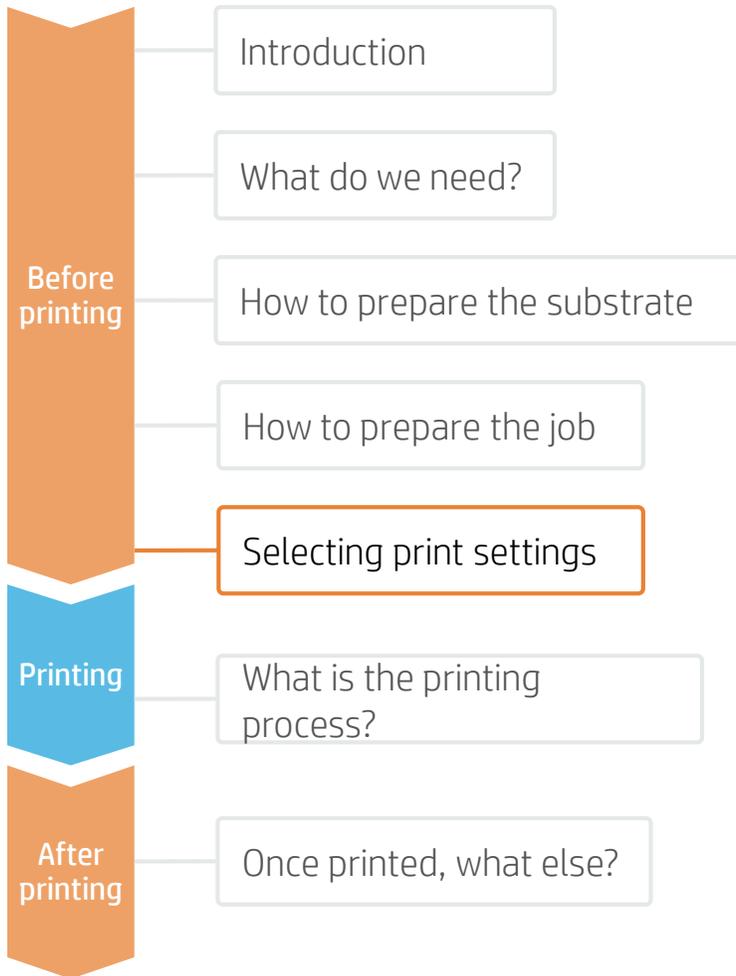
If you plan to use an automatic cutter, create the cutting job for your image through your RIP.

Check if your support mechanism requires any special shapes or perforations (e.g. holes for grommets).



How to produce Roll-up Banners

Selecting print settings



Once the job is selected and the substrate is ready, we're almost ready to print.

First we need to select the right printing settings. These settings are found within the **substrate presets**.



Use different media presets based on the substrate being used



Substrate presets

Many substrates have been tested at hp on different Latex printers. In some cases, presets have been created for specific substrates and printers and are available to download from the HP Media Locator:

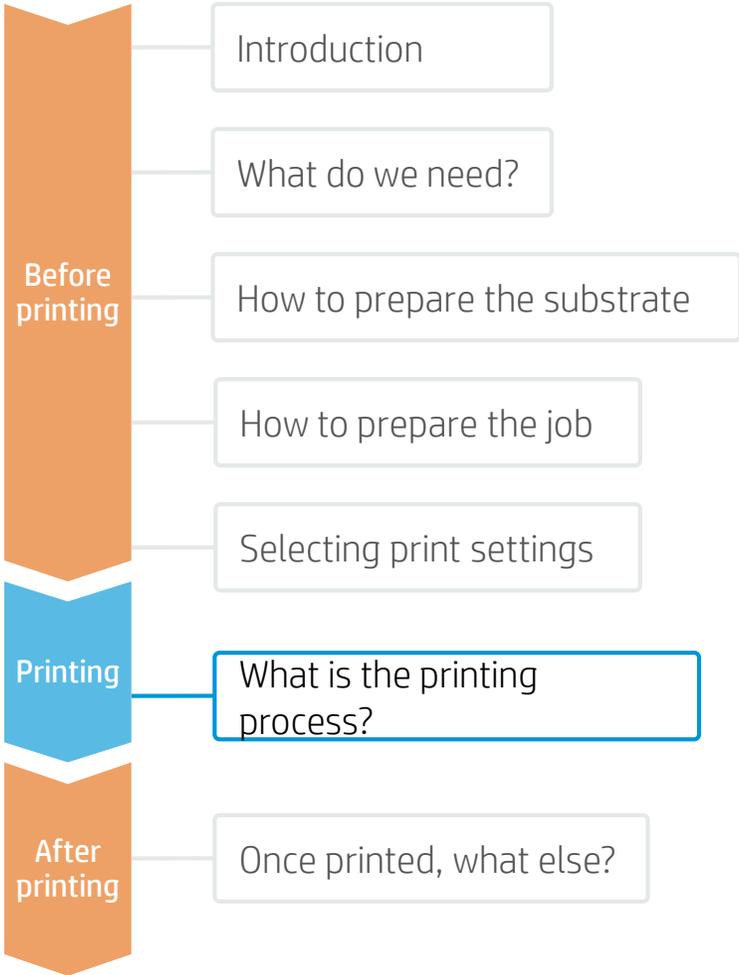
<https://www.printos.com/ml/#/homeMediaLocator>

Find the right profile by filtering for printer and substrate type.

If the substrate you need to print on has a substrate preset available, we recommend downloading, installing, and using it on your printer and RIP. If there is no substrate preset for the specific substrate being used, using the "Generic" preset for your substrate's type (PVC Banner, PET Film, Textile...) may be a good starting point option.

How to produce Roll-up Banners

The printing process

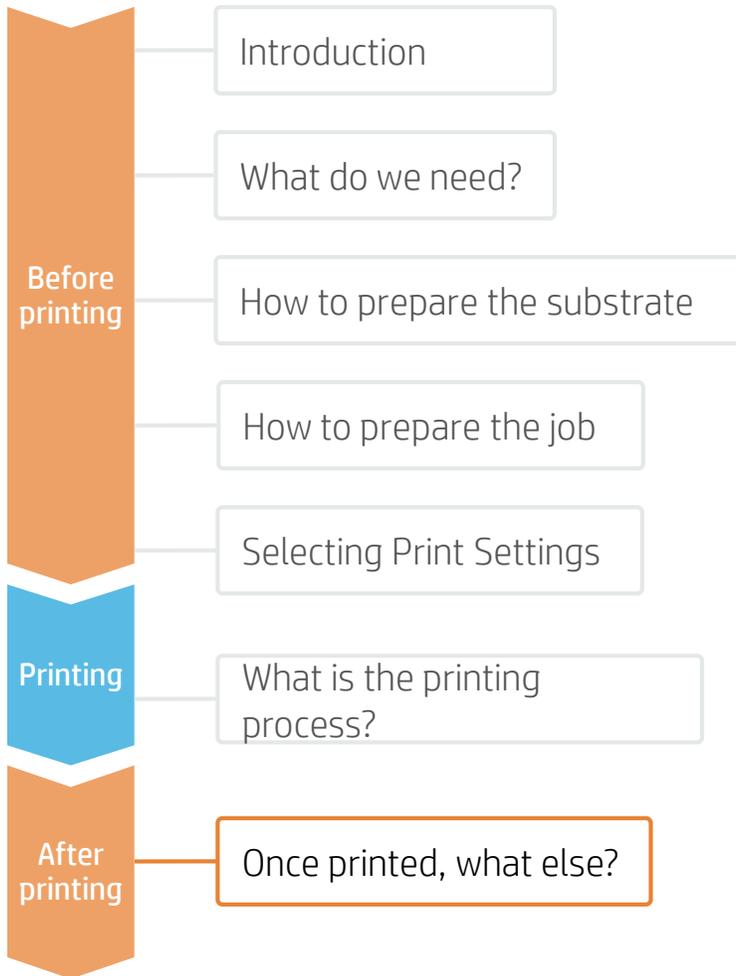


1. Rip the artwork after selecting the corresponding substrate preset. Send the output to the printer's queue (L1500, L3X00, R-series) or directly to the printer (L1X0, L2X0, L3X0, L5x0).
2. Load the substrate on the printer using the specific preset previously selected.
3. Follow the loading process for your printer.
4. Use the take-up reel if needed (L1X0, L2X0, L3X0, L5x0); we recommend using it for large jobs.
5. Consider placing the in-line slitters in order to to cut the media while printing. (L1500, L3X00).
6. Select the ripped job and drag it to the printer's queue (L1500, L3X00, R-series).



How to produce Roll-up Banners

How to prepare the substrate



1. Protect the Prints (Optional)

Apply film or liquid lamination to the prints for extra durability against chemicals and long term use.

Choose the protection that best fits the media used. For example, use a PVC-based transparent film to laminate PVC substrates or a PET-based transparent film to laminate PET substrates.

 **NOTE:** Lamination can be performed right after printing. You do not need to wait.

 **NOTE:** We recommend storing laminated rolls with the laminate facing out.

3. Assemble the Roll-up Sign

Follow your mechanism's instructions to fit the printed sign on it.

Most commonly, the steps involve:

1. Releasing the lower clip.
2. Breaking the tension to manipulate it freely.
3. Attaching the lower end of the print into the lower clip (usually using tape).
4. Attaching the upper end of the print to the top clip.
5. Releasing the brake and rolling the print carefully into the mechanism.



2. Cut the Prints

Use manual tools or an automatic cutter to bring the print to the desired size and shape.

Drill holes and apply grommets (if needed on the support mechanism).

 **NOTE:** To learn more about cutting, consult the following document:

“Good practices to ensure correct cutting accuracy with HP Latex Print and Cut Solution”
<https://hplatexknowledgecenter.com/application/s/good-practices-ensure-correct-cutting-accuracy-hp-latex-print-and-cut-solution>



<https://youtu.be/3AVUE7XuMX0>



How to produce Roll-up Banners



Learn more at:

www.hplatexknowledgecenter.com

You can find templates to use at HP Application Center.

- Open the Roll-ups app at www.hpapplicationscenter.com.
- Select the “**Backgrounds**” tab from the left-hand navigation bar.
- For editable social distancing and general hygienic themed templates, select the “**COVID-19**” folder.
- For illustrations to create your own poster, select the “**Objects**” tab on the left, and choose “**COVID-19**”.

Partnership





How to print Separation Panels with rigid materials

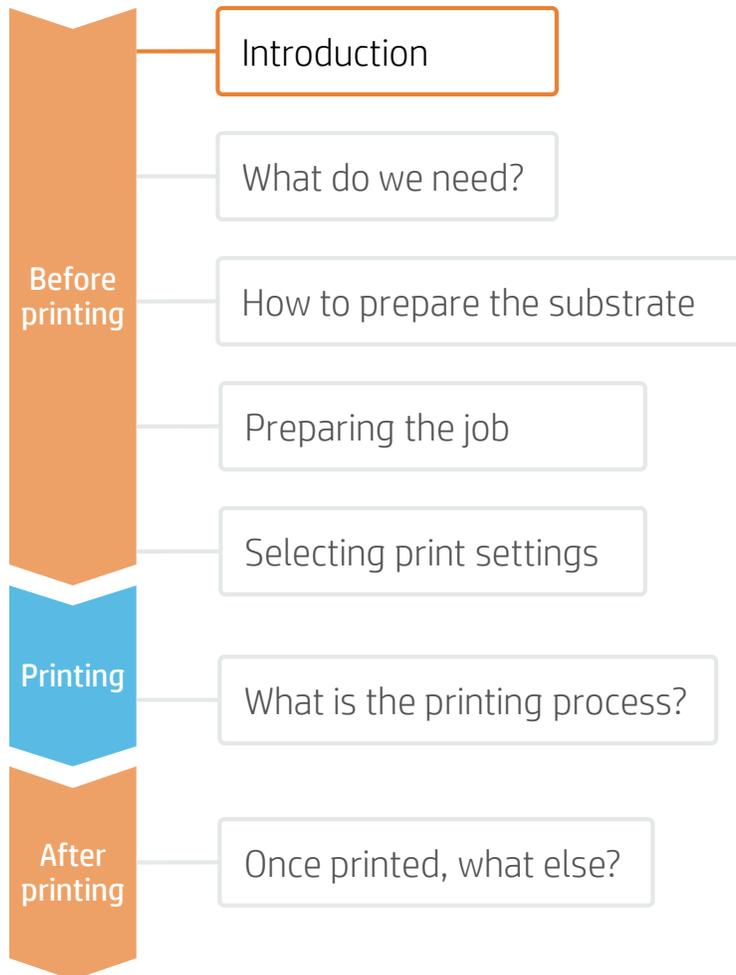
This document will explain how to produce
Separation Panels with rigid materials



How to produce Separation Panels with rigid materials



Introduction



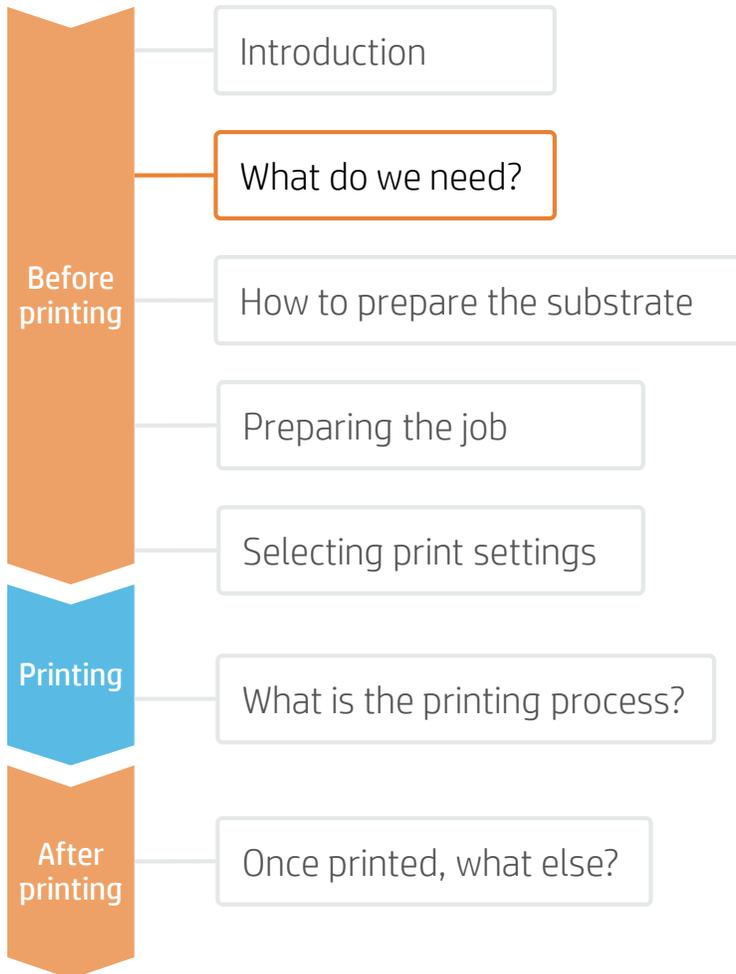
As the world slowly starts to come out of confinement, we are re-thinking how we keep our distance in public spaces. Organizations like retailers, restaurants, and office buildings are rapidly having to re-design their interiors to guard the safety of their employees and customers. Separation panels help to guarantee a safe distance between individuals, and also help to shield them from the pathogen carried through the air when someone sneezes, coughs, or breathes too close by.

Separation panels can be made of many materials, ranging from cardboard to acrylic and textile. Considering that these separation panels will possibly be a reality for a few months or longer, many business owners are starting to consider making these separating panels visually pleasing. HP Latex inks can offer a number of interesting benefits for any business owner who wants to enhance their functional panels to become decorative *and* functional.

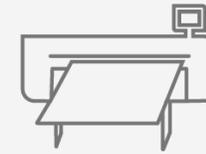
How to produce Separation Panels with rigid materials



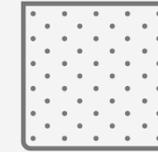
What do we need?



Rigid Board
Acrylic/
PVC Foam/Cardboard



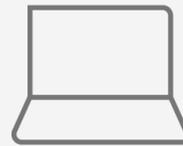
HP Latex
R series Printer



Clean Cloth



Gloves



SW tools
(RIP, edition, etc.)



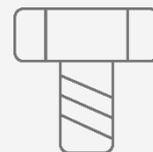
Liquid or Film
Laminate
(Optional)



Cutting device



Drill and metal drill bits
(optional)



Finishing parts: screws,
washers,..



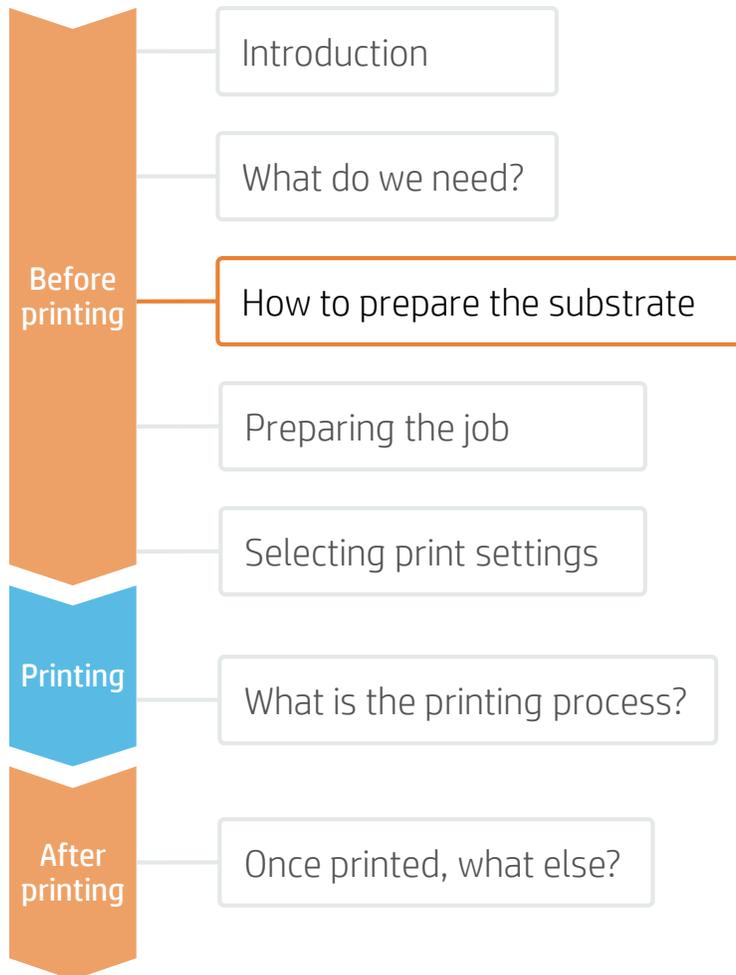
Primer
(optional)



Isopropyl Alcohol
(optional)

How to produce Separation Panels with rigid materials

How to prepare the substrate



1. Select Substrate

For transparent screens, the most common materials are **Acrylic boards** and **Polycarbonate (more suitable if impact resistance is needed)** or **Polystyrene (for an economical solution)**.

For opaque screens, **PVC Foams** are the most common material, while **Cardboard** offers an economic and more ecologically-friendly alternative.

Flexible **Self-adhesive Vinyl** can be applied to unprinted screens. However, this type of material will not be covered in this cookbook.

In this document, we will cover the most important steps for rigid materials. Check the following sites for specific information about:

- Acrylic: <https://hplatexknowledgecenter.com/applications/how-print-acrylic-boards-pmma>
- PVC Foam Boards: <https://hplatexknowledgecenter.com/applications/how-print-pvc-foam-board-hp-latex-r-series-printer>
- Self-adhesive Vinyl: <https://hplatexknowledgecenter.com/applications/how-print-separation-panels-self-adhesive-vinyl>



Considerations: Durability

For long term applications and/or **if the prints will be cleaned** regularly, it is recommended to protect the prints with either **Film** or **Liquid lamination**.

Acrylics tend to have worse scratch resistance and ink adhesion than other plastics. If extra durability is required, a **primer** can be applied prior to print.

Alternatively, an acrylic with digital surface treatment can be used: **Plaskolite Optix DA** is an enhanced acrylic for digital printing.

Polycarbonates may also be an option for Acrylic substrates in most applications, especially if laser cutting is not required for the final sign.

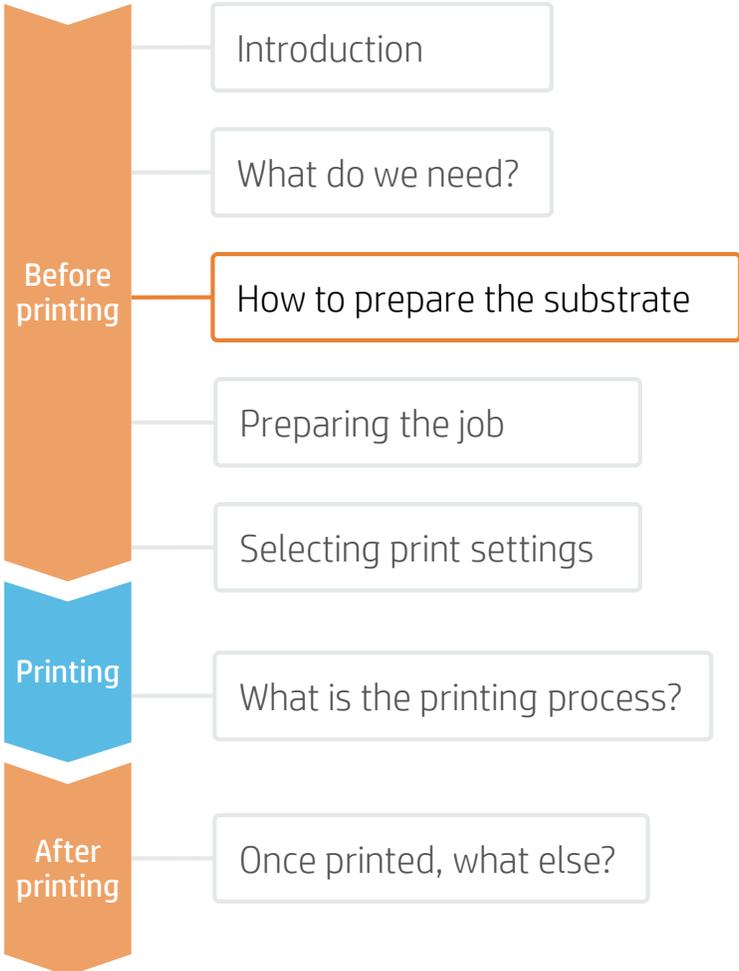
Considerations: Cutting method

Polycarbonates and Cardboards are not suitable for laser cutting.

How to produce Separation Panels with rigid materials



How to prepare the substrate



1. Ensure panel flatness

Some media tends to absorb moisture and lose its flatness. Ensure the board is flat prior to print.

NOTE: If the panel is deformed there is a risk of a printhead crash. The use of edge holders may be necessary when printing on waved substrates.



2. Media handling

Handle samples with care!

It is recommended to use gloves to prevent accidental cuts and also to avoid leaving fingerprints on the surface. Marks and scratches created prior to print will be visible after printing.



3. Cut (optional)

Cut the sample to the desired size using a device (table saw, cutting table...).

NOTE: This process can be also done after the job is printed. There is no ink chipping along the cut edge.



4. Remove the Liner

If the substrate has a protective film, peel it off from one side, leaving the other side protected until finishing or installation of the finished graphic.

Avoid touching the print surface with unprotected hands. Fingerprints may become visible after printing.



5. Cleaning

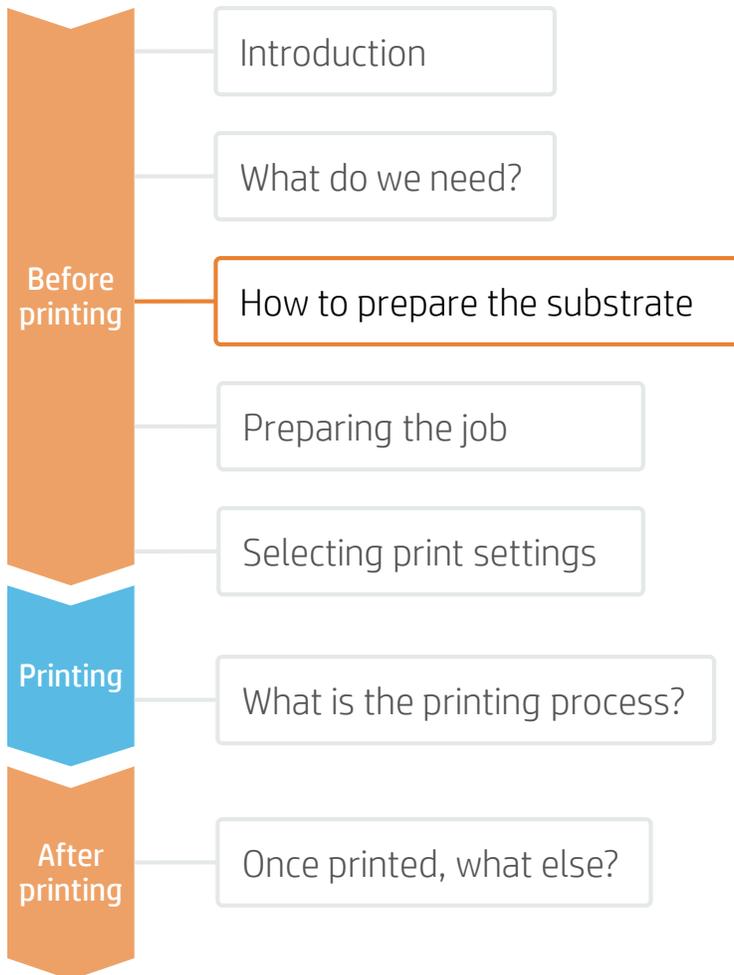
After the protective film has been removed, dust particles may tend to adhere to the print surface. Remove dust particles by wiping the surface with an anti-static cloth.

TIP: If an anti-static cloth is not available, use an Alcohol based cleaner with a lint free cloth and wipe the print surface. Let it dry before printing.

How to produce Separation Panels with rigid materials



How to prepare the substrate



Acrylic: Apply Primer (optional)



6. Primer considerations

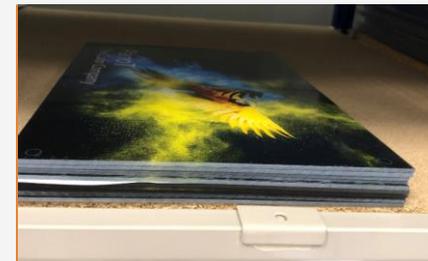
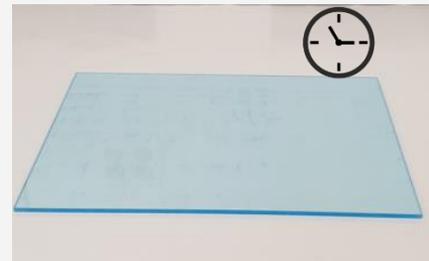
Acrylics tend to have worse scratch resistance and ink adhesion than other plastics. If extra durability is required, a primer can be applied prior to print.

If long term durability or chemical resistance is required, it is recommended to apply a protective lamination even when primer is used.

6a. Primer application (optional)

Apply the primer from edge to edge uniformly to avoid marks or lines.

 **TIP:** It is recommended to apply the primer to the whole surface in order to avoid visual differences. Manual application is recommended for small or medium size panels. (A3 / A2 sizes).



6b. Primer drying

Allow the primer to **dry for 30-60 mins** prior to print. It's recommended to print within the following **4-5 hours**.

Follow the instructions provided by the primer manufacturer.

6c. Primer durability

After printing, handle samples with care. Full ink durability is usually achieved 24h after printing.

 **NOTE:** Ink and primer adhesion depends on the surface chemistry and its interactions. We recommend a compatibility test with ink and primer prior to applying them to a whole job.

 **HEALTH & SAFETY:** Protective gloves and goggles are recommended when applying primers (check complete information in MSDS). A clean and ventilated room is required when applying most primers.

 **NOTE:** Primers tested by HP that have shown increased durability:

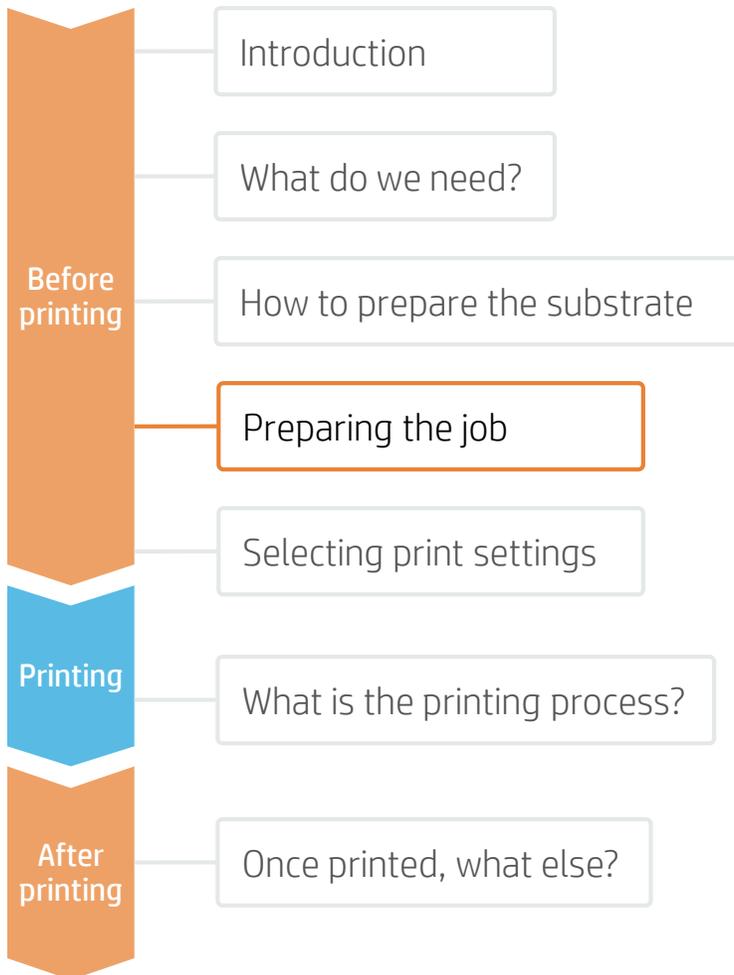
- Spandex DGPA,
- Fujifilm Sericol Uvijet Adhesion Promoter ZE 680

Tests performed on Evonik Plexiglass XT and Evonik Plexiglass GS.

How to produce Separation Panels with rigid materials



Preparing the job



1. Create the Image

Create the graphic using standard design tools (Photoshop, Illustrator...).

Make sure the image size fits the characteristics of your screen structure.

Some cutter manufacturers provide **ready-to-use panel templates** through their online tools (like Zund Design Center).

If the image will use white ink, define the corresponding image layers (see (see “Selecting Print Settings”).



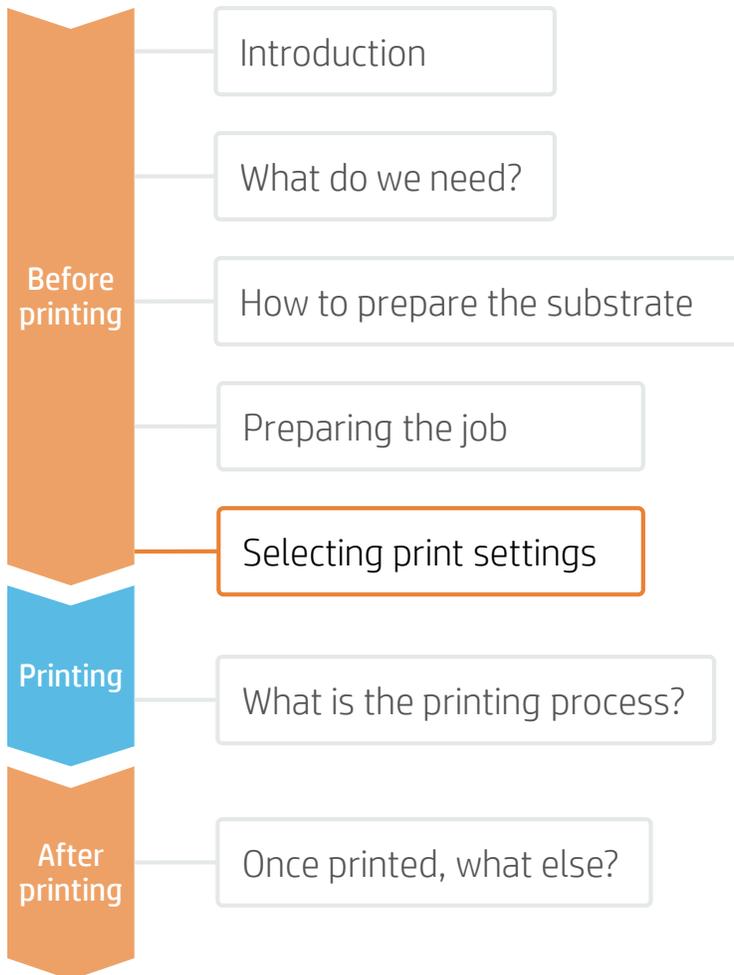
2. Add Cutting Marks (optional)

If you plan to use an automatic cutter, create the cutting job for your using your design tool or your RIP.

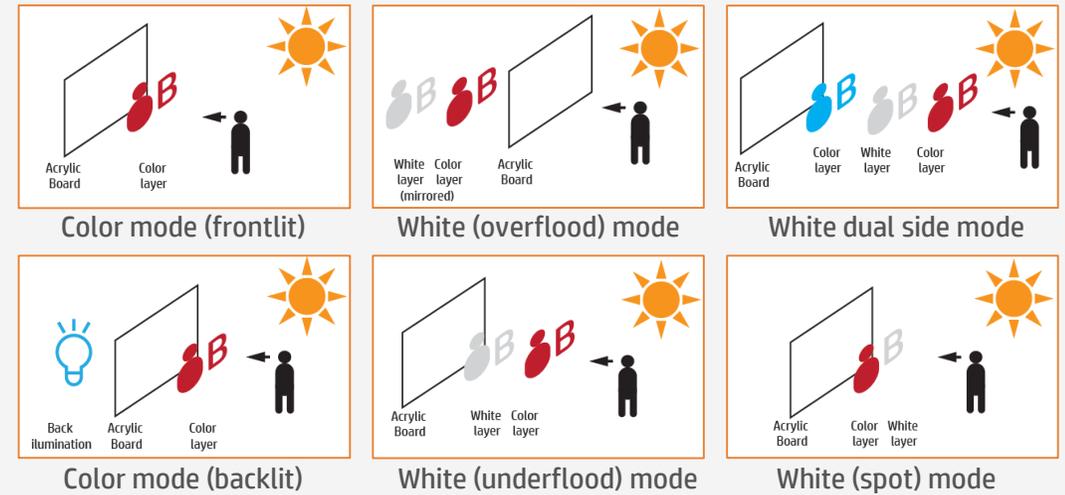
Check if your screen structure requires any special shapes or perforations.

How to produce Separation Panels with rigid materials

How to prepare the job?



Choose how white ink will be applied based on the application and substrate needs:



NOTE:

- **For clear materials:** Printing *White Overflow* or *Underflood* ensures color accuracy and opacity on printed areas.
 - If the prints will not be protected, *Overflow* will provide the best durability.
 - If images need to be seen from both sides, use *Dual Side* mode.
- **For white materials:** Color mode is the best option.
- **For colored materials:** Spot white mode allows you to print white images on non-white panels.



NOTE: To know more about how to **work with white ink**, please refer to the cookbook “How to print with White”: <https://hplatexknowledgecenter.com/applications/how-print-white-ink-hp-latex-r-series-printer>



Media presets

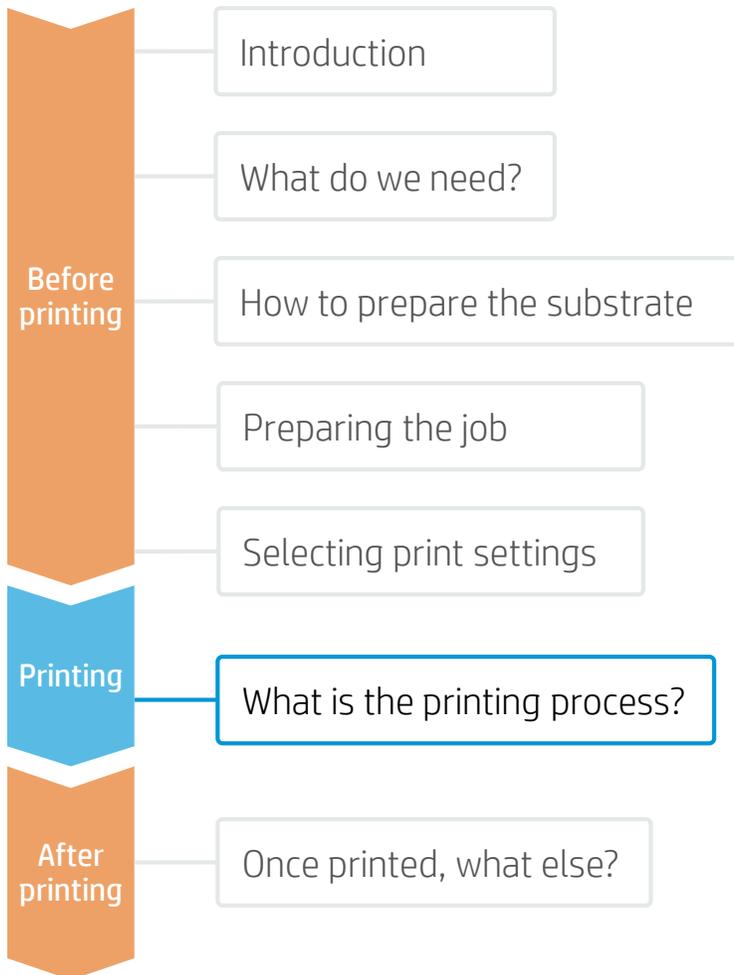
Many substrates have been tested at HP. In some cases, a media preset has been created and is available for downloading. Visit: <https://www.printos.com/ml/#/homeMediaLocator>

If the media you’re using has an available media preset, we recommend downloading, installing, and using it on your printer and RIP.

If there is no media preset for the specific substrate being used, using the corresponding Generic preset is a good starting point. (e.g. Generic Plastic Solid for Acrylics).

How to produce Separation Panels with rigid materials

The printing process



1. Rip the artwork after selecting the corresponding media preset and print mode.

Send the output to the printer's nest.

NOTE:

Regarding printmode selection:

-Select **color** modes "**Fast/Outdoor Signage/Indoor Signage**" to print on white boards with thickness **equal or greater than 3 mm**.

-Select how white will be applied:

- **White UF** to print UnderFlood
- **White OF** to print OverFlood
- **White SP** to print white as a Spot Color.

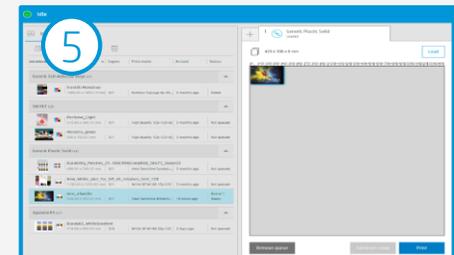
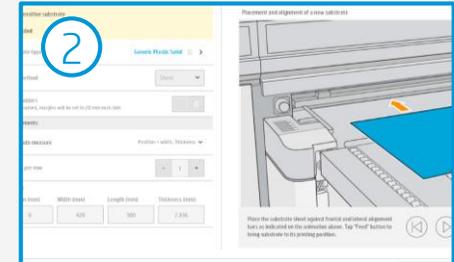
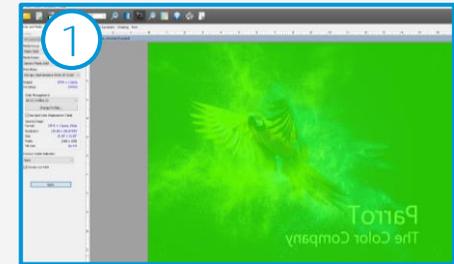
-Select **Heat Sensitive** modes "**Fast HS/Heat Sensitive**" to print on boards **thinner than 3 mm**. Those modes apply a smoother temperature ramp that helps to keep boards flat.

2. Load the substrate on the printer using the specific preset previously downloaded, or the corresponding *Generic*.

3. Follow the loading process.

4. In case you use a heat sensitive (HS) print mode, activate the curing lever.

5. Select the ripped substrate and drag it to the printer job.

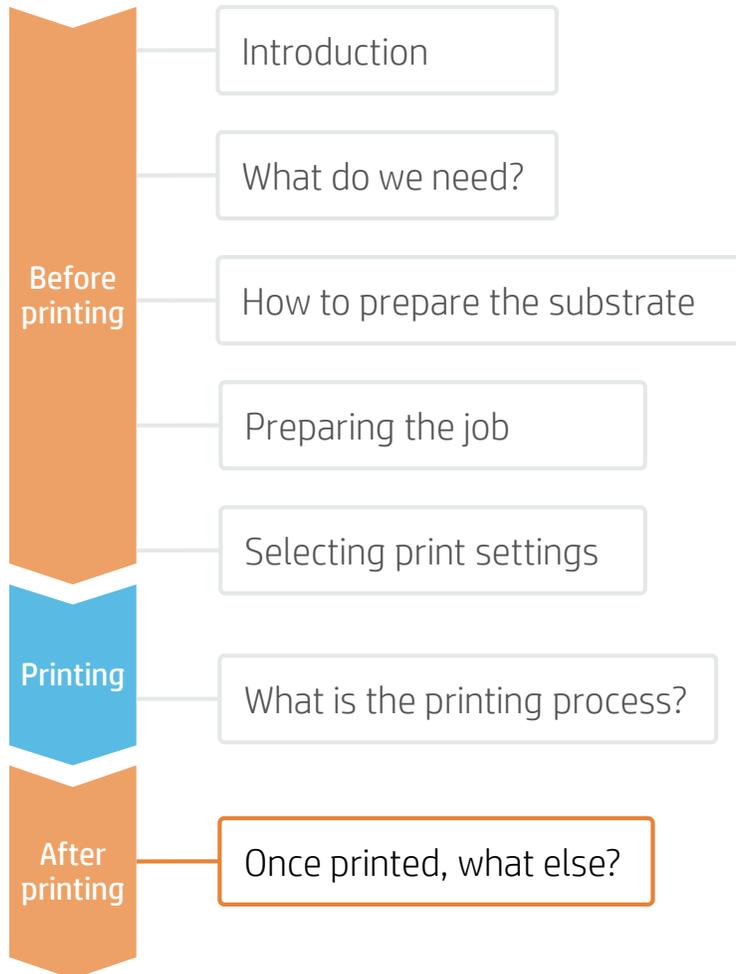


Press print

How to produce Separation Panels with rigid materials



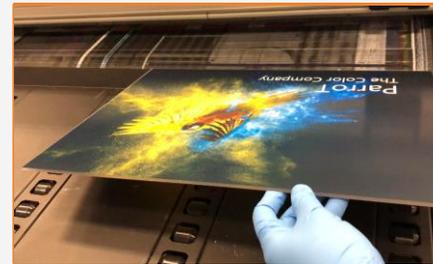
Once printed, what else?



Here we present the most common and important post-processing steps for all materials.

For specific information about your material and detailed information on cutting, drilling, gluing, hot bending, and thermoforming, check the corresponding cookbooks:

- Acrylic: <https://hpllatexknowledgecenter.com/applications/how-print-acrylic-boards-pmma>
- PVC Foam Boards: <https://hpllatexknowledgecenter.com/applications/how-print-pvc-foam-board-hp-latex-r-series-printer>



1. Handling Samples

HP recommends using gloves when handling samples immediately after printing, as the panel will be hot. Use caution when loading or lifting sheets from the tables, as the media and ink can be scratched.

Some materials (like PVC) may present a slight waving immediately after printing. Let the samples rest on a flat surface for 5-10 mins to recover its original shape. If deformation is not acceptable after 10 mins, consider reducing the curing temperature and printing again.

NOTE: Ink adhesion may improve over 24 hours. However, it is possible to handle, machine, and finish samples immediately after printing.



2. Protect the Prints (Optional)

Apply film or liquid lamination to the prints for extra durability against chemicals (cleaning or sterilizing agents) and for long term use.

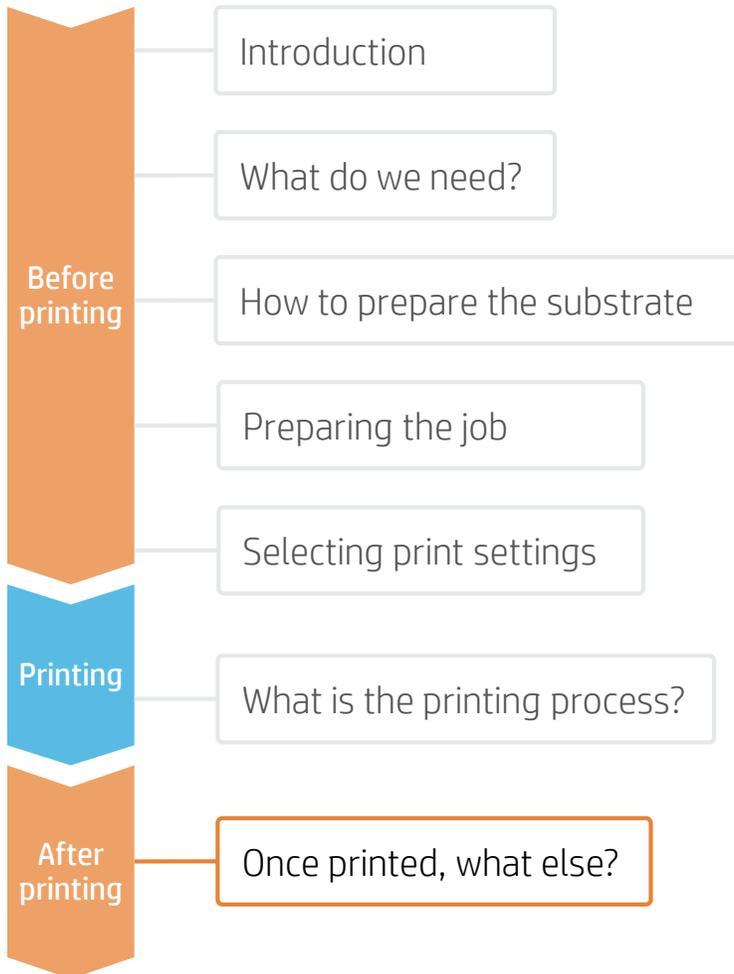
NOTE: Lamination can be performed immediately after printing. You do not need to wait.

NOTE: We recommend storing laminated rolls with the laminate facing outward.

How to produce Separation Panels with rigid materials



Once printed, what else?

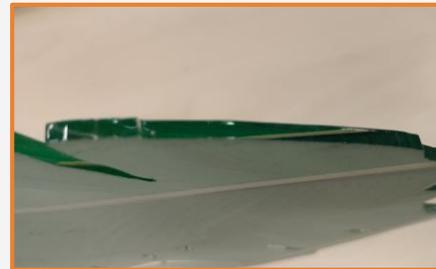


3 a. Cutting with router

Cut the samples to the final dimensions if you have not done so previously.

NOTE: We recommend not cutting different materials with the same drill. Reserve drills to cut the same category of materials to get the most accurate cut. For further information on cutting tools and settings, check:

- ZUND cutters: <https://hpllatexknowledgecenter.com/blog/zund-cutting-systems-your-choice-cutting-rigid-substrates>
- SUMMA cutters: <https://hpllatexknowledgecenter.com/blog/hp-latex-r-series-printers-cutting-rigid-substrates-summa>



3 b. Cutting with laser

Acrylics printed on Latex can be cut using laser cutters. This process allows materials to have a smooth edge finish.

NOTE: In some cases, a “shadow” image may appear close to the edge when cutting printed samples. HP recommends leaving an unprinted border when cutting with laser.



4. Finishing the cut edge

If samples are not cut using a laser, there are different methods to finish the edge. Sanding, scraping, or flame polishing are possible finishing options.

HP recommends to polish acrylic boards avoiding the printed area.



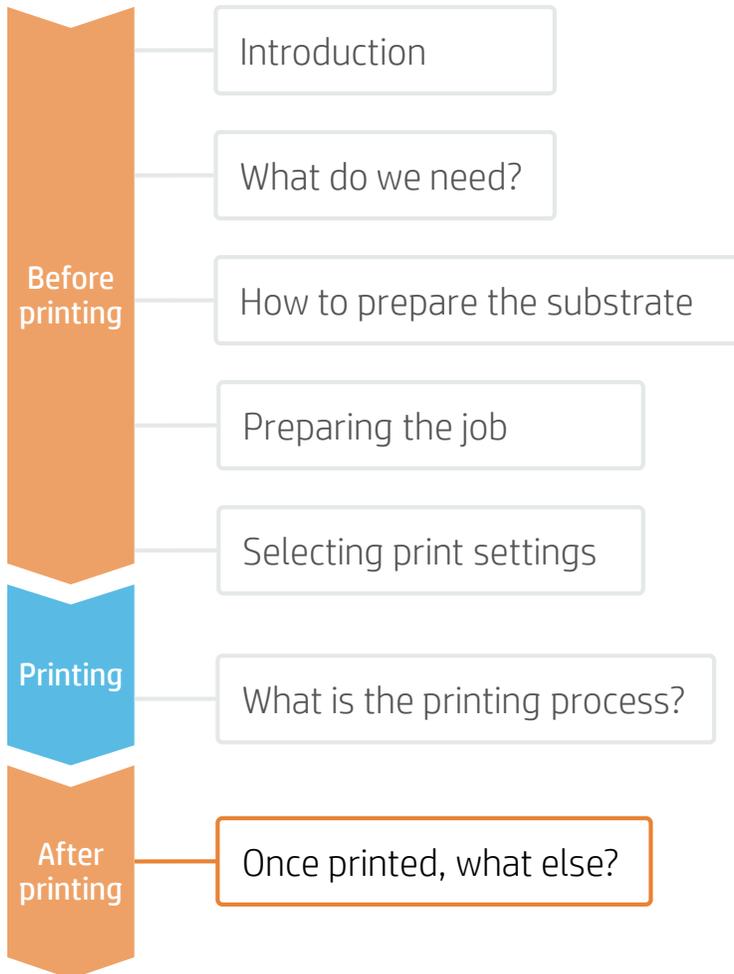
5. Substrate expansion

Many materials (Acrylic, PVC, Cardboard...) expand and contract with temperature changes. When installing acrylic panels, it's very important to consider media expansion to avoid boards cracking. Drill oversized holes to allow boards to absorb expansion.

For example: Acrylic expands approx. 0.075 mm/m/K (0,000045in/in/F).

How to produce Separation Panels with rigid materials

Once printed, what else?



6. Mount and install

Position legs, hangers, or other accessories and place them in their final location.

Make sure the panel is stable.

Most screens can be replaced, removed, stored, and transported easily, as many times as needed.



7. Cleaning and Maintenance

If screens need to withstand regular cleaning or contact with water and chemical agents, it is recommended to do the following:

- 1- Protect the prints, either with film or liquid lamination.
2. If not protected, clean with a dry soft cloth. In case extra cleaning is needed, we recommend to clean with water and a clean soft cloth only.

Acrylics do not support the use of alcohol, benzene, or brushes to clean them.

How to produce Separation Panels with rigid materials



Learn more at:

www.hplatexknowledgecenter.com

Partnership





How to print Separation Panels with SAV

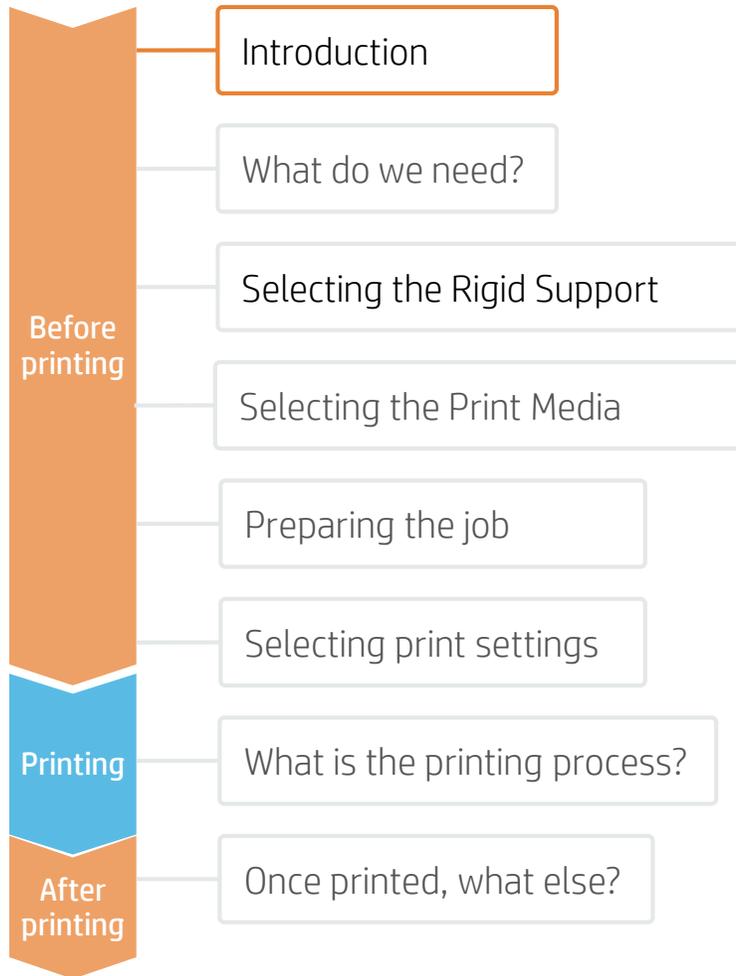
This document will explain how to produce Separation Panels when printing on Self-Adhesive Vinyl



How to produce Separation Panels with SAV



Introduction



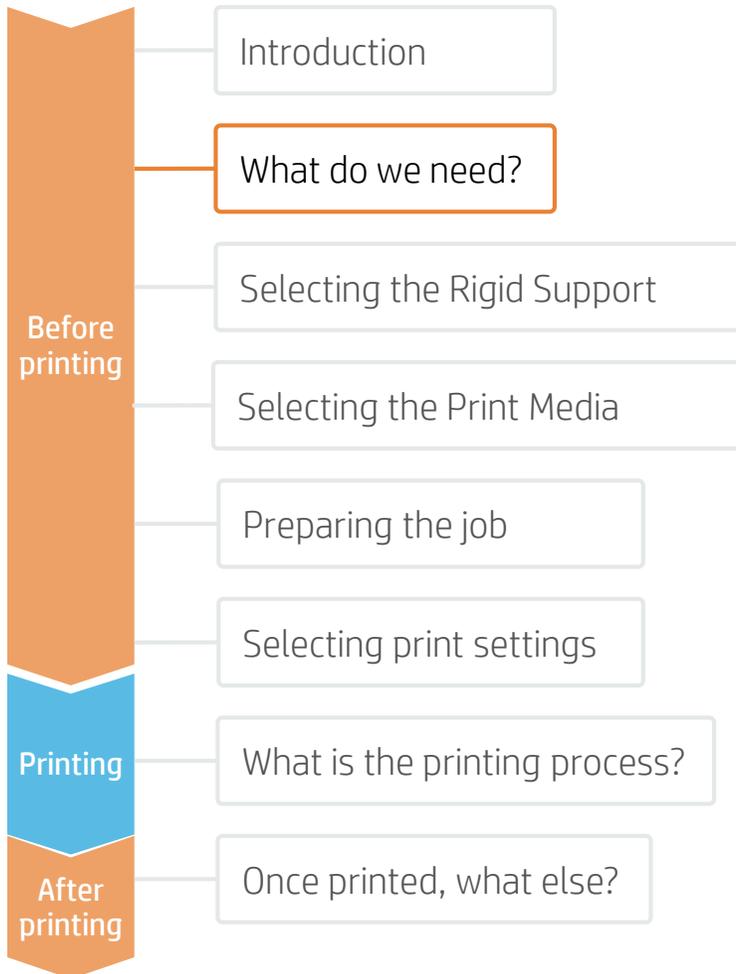
As the world slowly starts to come out of confinement, we are re-thinking how we keep our distance in public spaces. Organizations like retailers, restaurants, and office buildings are rapidly having to re-design their interiors to guard the safety of their employees and customers. Separation panels help to guarantee a safe distance between individuals, and also help to shield them from the pathogen carried through the air when someone sneezes, coughs, or breathes too close by. These separation panels will possibly be a reality for a few months or longer. Many business owners are starting to consider making these separation panels more visually pleasing and durable.

Separation panels can be made of many materials, but most often they are rigid materials like cardboard, acrylic polycarbonate, etc. If you have a roll to roll printer, you can decorate these separation panels with self-adhesive vinyl, making them decorative *and* functional.

How to produce Separation Panels with SAV



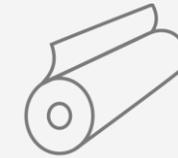
What do we need?



Rigid Board



HP Latex Printer



Self-adhesive Vinyl



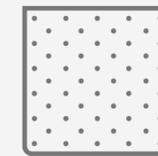
Film Laminate
(Optional)



SW tools
(RIP, edition, etc.)



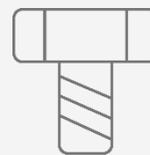
Cutting device



Clean Cloth



Gloves

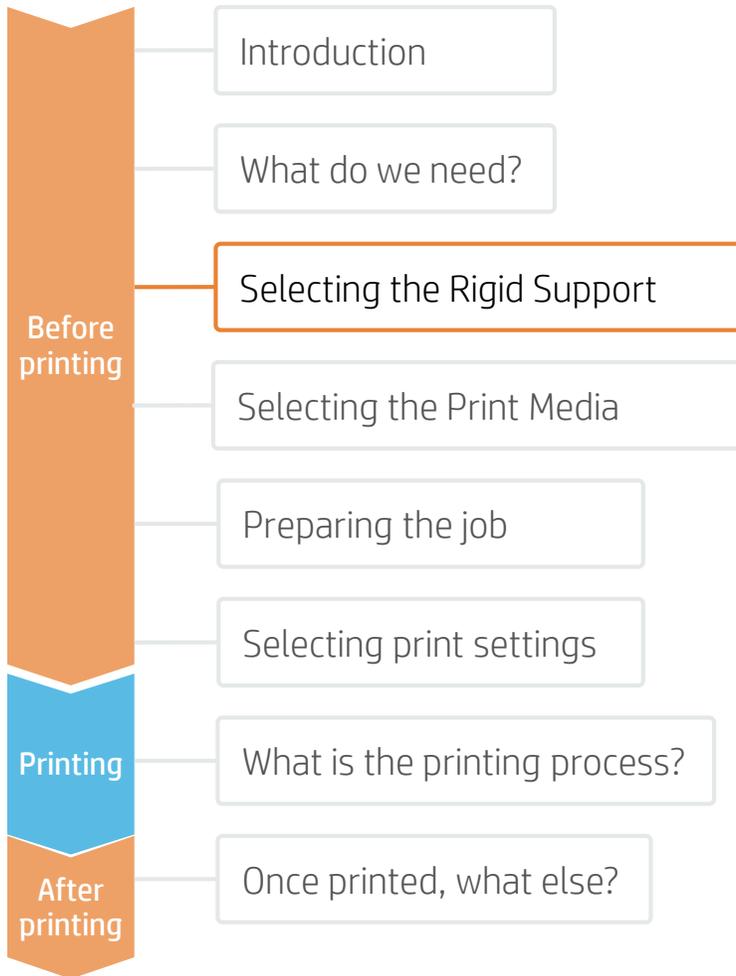


Finishing parts:
grommets, screws
(optional)



Isopropyl Alcohol
(optional)

Selecting the Rigid Support



The most common types are:

- Acrylic
- Polycarbonate
- Polystyrene
- PVC Foams
- Cardboard

1. Select Material

For transparent screens, the most common materials are **Acrylic boards** and **Polycarbonate** (more suitable if impact resistance is needed) or **Polystyrene** (for an economical solution).

For opaque screens, **PVC Foams** are the most common material, while **Cardboard** offers an economic and more ecologically-friendly alternative.

These materials can also be printed directly using an HP Latex R-series printer.

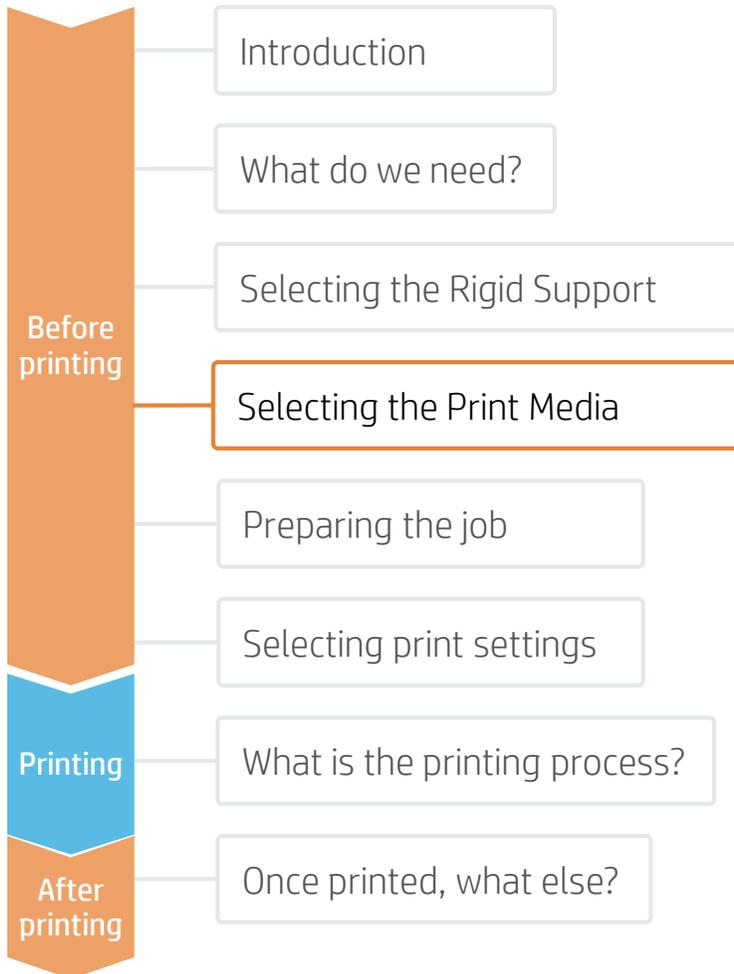
Check the following document for more information about this application:
<https://hplatexknowledgecenter.com/applications/how-print-separation-panels-rigid-materials>

Considerations: Cutting method

Acrylic boards can be cut with Laser cutters.
The rest of materials cannot be cut using Laser.
See the section “Once printed, what else?” for more information about the cutting process.

NOTE : Some cutter manufacturers provide **ready-to-use panel templates** through their online tools (like Zund Design Center).

Selecting the Print Media



1. Select Substrate Type

The most common types are:

- Self-adhesive Monomeric Vinyl
- Clear PP static clings
- Clear PET static clings

Considerations: Durability

For long term applications and/or if the prints will be cleaned or sterilized regularly:

- **Laminate** the prints for the highest resistance to chemicals such as: alcohol, ethanol and Windex.
- If the application is outdoor, consider using a Polymeric vinyl for better resistance to UV.
- Use the film lamination that best matches your material type (monomeric, polymeric...) and equipment (hot or cold lamination).

Considerations: Opacity

To add Graphics on the borders of separating panels, a White material should be the most efficient option.

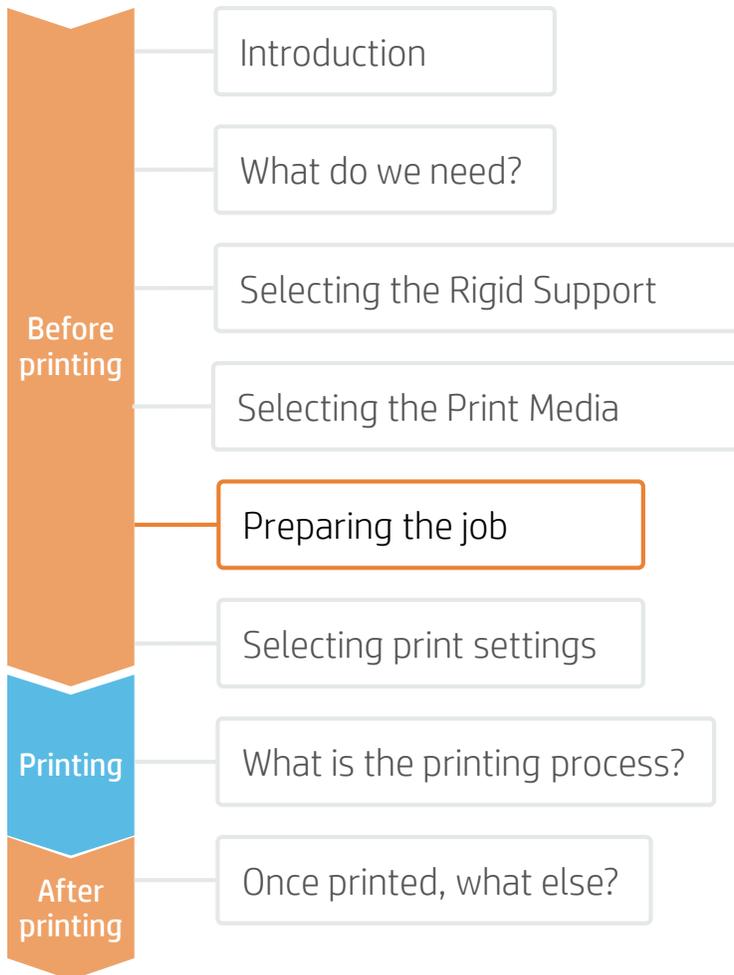
For transparent applications, consider using materials based on PP or PET. In this case, consider using white ink for different visual effects (HP Latex R-series only).

Considerations: Adhesive

For long lasting applications, use materials with **Permanent adhesive**.

For temporary applications, where the Graphics may be replaced on the same panel, consider using **Static Cling** medias or materials with repositionable adhesive, such as Neschen Easy Dot.

Preparing the job



1. Create the Image

Create the graphic using standard design tools (Photoshop, Illustrator...).

Make sure the image size fits the characteristics and dimensions of your panel.

If the image will use white ink, define the corresponding image layers. Check the following document for more information about printing with white ink:
<https://hpllatexknowledgecenter.com/applications/how-print-white-ink-hp-latex-r-series-printer>

2. Add Cutting Marks (optional)

If you plan to use an automatic cutter, create the cutting job for your using your design tool or your RIP.

Check if your screen structure requires any special shapes or perforations.

 **NOTE:** To learn more about cutting, consult the following document:

“Good practices to ensure correct cutting accuracy with HP Latex Print and Cut Solution”

<https://hpllatexknowledgecenter.com/applications/good-practices-ensure-correct-cutting-accuracy-hp-latex-print-and-cut-solution>

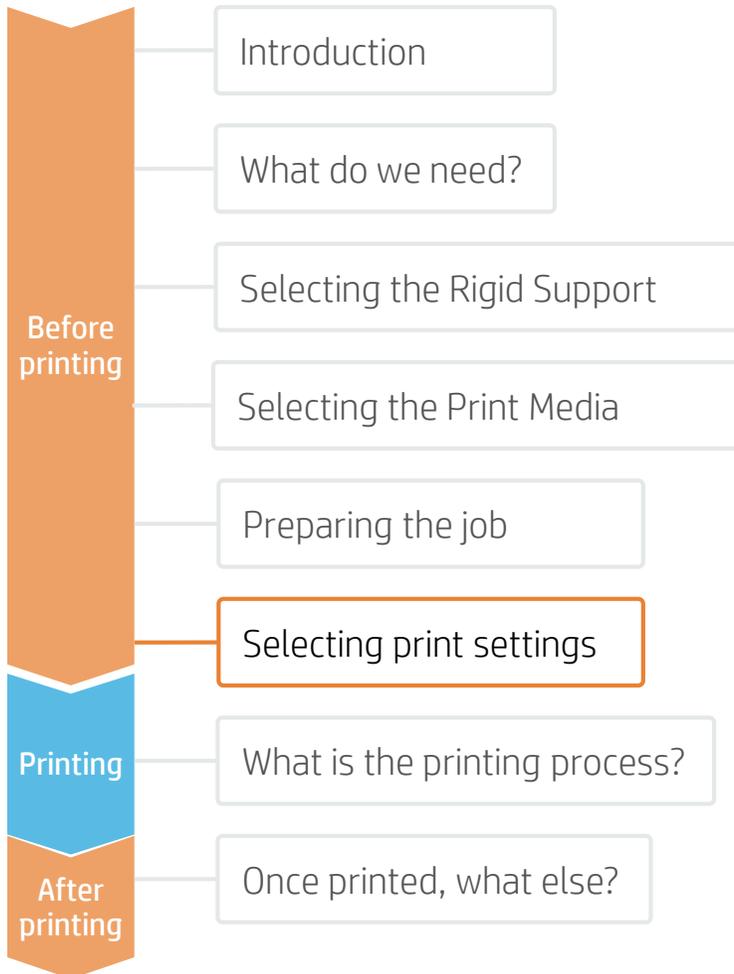
How to produce Separation Panels with SAV



Once the job is selected and the substrate is ready, we're almost ready to print.

First we need to select the right printing settings. These settings are found within the **substrate presets**.

Selecting print settings



Use different media presets based on the substrate being used



Substrate presets

Many substrates have been tested at HP on different Latex printers. In some cases, presets have been created for specific substrates and printers, and are available to download from the HP Media Locator:

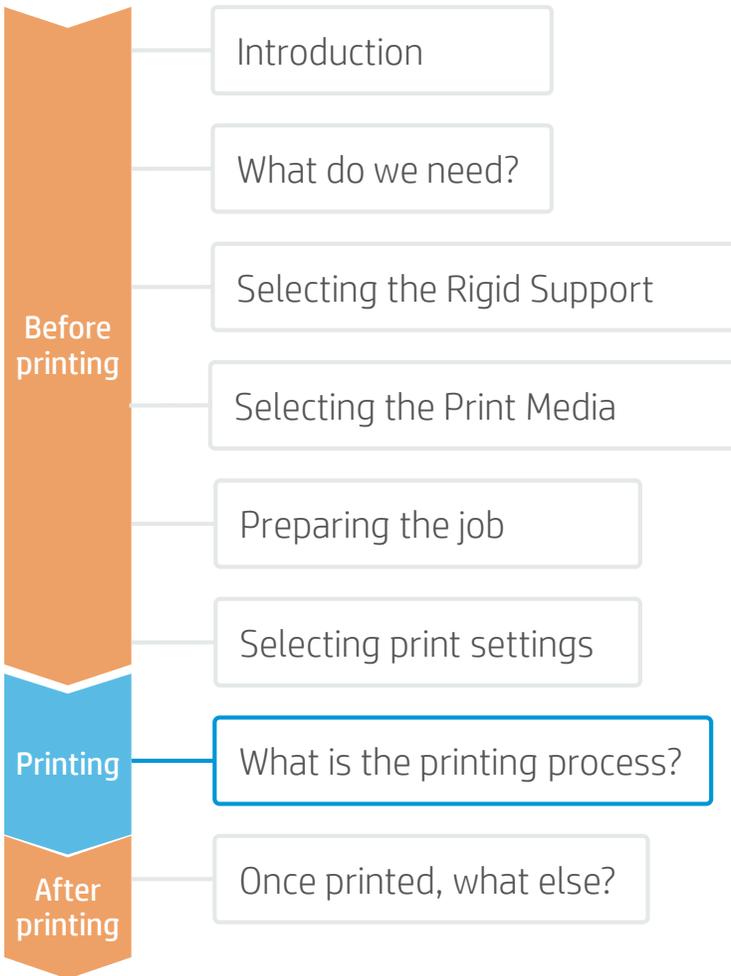
<https://www.printos.com/ml/#/homeMediaLocator>

Find the right profile by filtering by printer and substrate type.

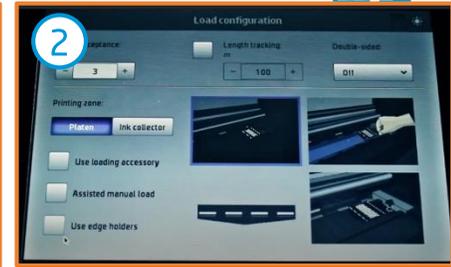
If the substrate you need to print on has a substrate preset available, we recommend downloading, installing, and using it on your printer and RIP. If there is no substrate preset for the specific substrate being used, using the "Generic" preset for your substrate's type (Generic Self Adhesive Vinyl) may be a good starting point option.

How to produce Separation Panels with SAV

The printing process



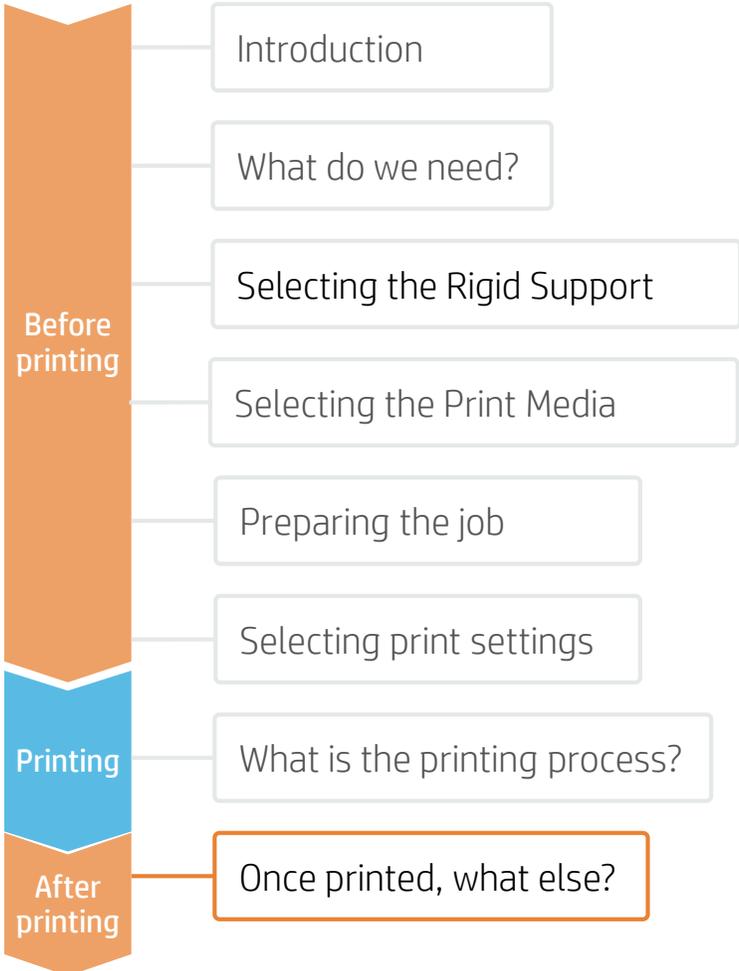
1. Rip the artwork after selecting the corresponding substrate preset. Send the output to the printer's queue (L1500, L3X00, R-series) or directly to the printer (L1X0, L2X0, L3X0, L5x0).
2. Load the substrate on the printer using the specific preset previously selected.
3. Follow the loading process for your printer.
4. Use the take-up reel if needed (L1X0, L2X0, L3X0, L5x0); we recommend using it for large jobs.
6. Select the ripped job and drag it to the printer's queue (L1500, L3X00, R-series).



How to produce Separation Panels with SAV



How to prepare the Support



1. Board handling

Handle samples with care!

It is recommended to use gloves to prevent accidental cuts, and also to avoid leaving fingerprints on the surface.



2. Cut

Cut the sample to the desired size using a device (table saw, cutting table...).



3. Finishing the cut edge

If samples are not cut using a laser, there are different methods to finish the edge. Sanding, scraping, or flame polishing are possible finishing options.



4. Remove the Liner

If the substrate has a protective film, peel it off from one side, leaving the other side protected until finishing or installation of the finished graphic.

Avoid touching the print surface with unprotected hands. Fingerprints may become visible after printing.



5. Cleaning

After the protective film has been removed, dust particles may tend to adhere to the print surface. Remove dust particles by wiping the surface with an anti-static cloth.

TIP: If an anti-static cloth is not available, use an Alcohol based cleaner with a lint free cloth and wipe the print surface. Let it dry before printing.

NOTE: We recommend not cutting different materials with the same drill. Reserve drills to cut the same category of materials to get the most accurate cut. For further information on cutting tools and settings, check:

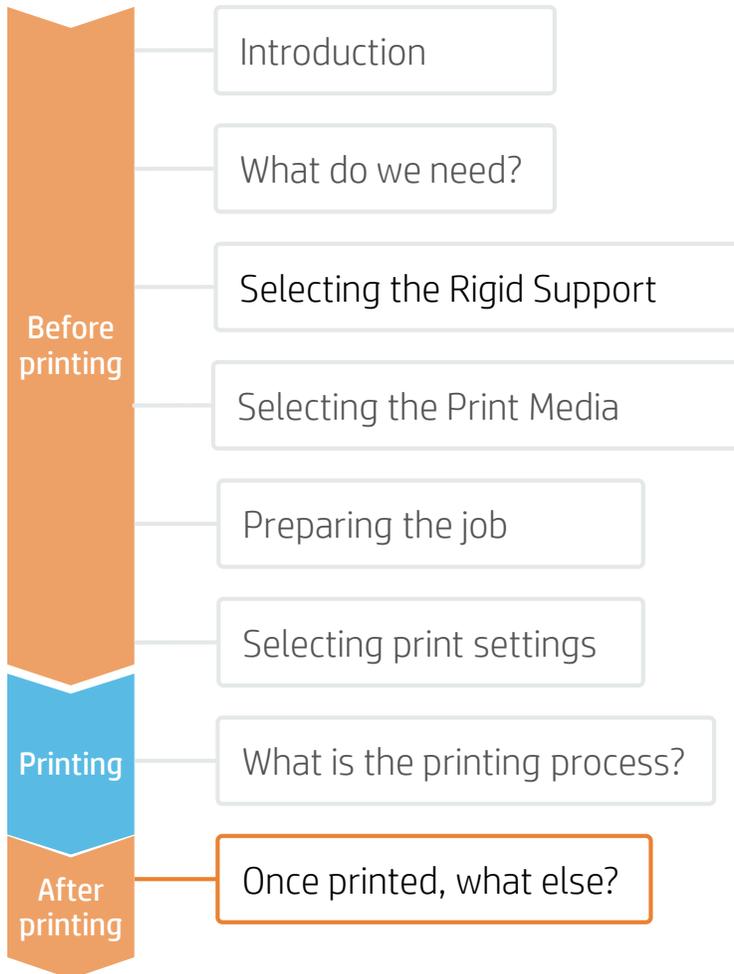
- ZUND cutters: <https://hplatexknowledgecenter.com/blog/zund-cutting-systems-your-choice-cutting-rigid-substrates>
- SUMMA cutters: <https://hplatexknowledgecenter.com/blog/hp-latex-r-series-printers-cutting-rigid-substrates-summa>

NOTE: Some cutter manufacturers provide ready-to-use panel templates through their online tools (like Zund Design Center).

How to produce Separation Panels with SAV



Finish and Apply the Prints



1. Protect the Prints (Optional)

Apply film lamination to the prints for extra durability against chemicals and long term use.

 **NOTE:** Lamination can be performed right after printing. You do not need to wait.

 **NOTE:** We recommend storing laminated rolls with the laminate facing out.



3. Apply the Vinyl to the Board

Carefully remove the liner and apply the Vinyl in the desired position.

Remove any air bubbles with a squeegee wiper.



2. Cut the Prints

Use manual tools or an automatic cutter to bring the print to the desired size and shape.

 **NOTE:** To learn more about cutting, consult the following document:

“Good practices to ensure correct cutting accuracy with HP Latex Print and Cut Solution”
<https://hplatexknowledgecenter.com/application/s/good-practices-ensure-correct-cutting-accuracy-hp-latex-print-and-cut-solution>



4. Mount and Install the panel

Position legs, hangers, or other accessories and place them in their final location.

Make sure the panel is stable.

Most screens can be replaced, removed, stored, and transported easily, as many times as needed.

How to produce Separation Panels with SAV



Learn more at:

www.hplatexknowledgecenter.com

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keep reinventing