Print Soft Signage with new durable textiles for HP Latex Printers

April 2019

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Overview

Those who will benefit from reading this document

This document is intended for:

- Owners and operators of HP Latex printers, with a special focus on the HP Latex 5XX, HP Latex 1500, HP Latex 1XX, HP Latex 3XX, HP Latex 3X00, HP Latex R1000 and HP Latex R2000.
- HP Latex customer support, marketing and sales organizations.

This document provides information about:

- Textile brands, references, types, classifications and their main applications within the scope of Soft Signage.
- A list of textiles that have been tested and proven to deliver good or very good dry-rub and scratch resistant performance.
- The information and resources offered for each material from the list, including:
    - If the substrate requires use with an ink collector accessory or not.
    - The recommended media presets for each printer, assuring the end-user will achieve the best results with each material (speed, amount of ink and other additional settings).
    - Options for end-users to find media presets and information previously described.
- Key end-user requirements for improved performance and/or durability and procedures used to verify image resistance, test results and thresholds.
- Information about media vendors, distribution and availability.

An introduction to textiles

Why are more durable textiles/fabrics needed?

The demand for textiles used in signage is growing. HP Latex Technology presents a practical solution and opportunity to leverage the advantages of textile use in signage, in particular:

- Textiles provide a soft touch finish, great color vibrancy, and are considered to be a *premium* product compared to vinyl or paper. End customers perceive textile signs as being 'high value'.
- Textiles are lighter in weight and wrinkle-free. They are easier to transport, mount and store, making the whole process more affordable through lower shipping and the storage costs.
- Environmental regulations are changing and impacting PVC-based substrates and traditional textiles. Media vendors are moving toward non-PVC based materials and the traditional market is moving toward digital printing.

HP Latex Printers are compatible with a range of textiles such as polyesters and natural fiber blends. HP Latex prints are odorless and due to the flexibility of HP Latex ink, the hand of the un-printed material is maintained even after it has been printed on.

This document provides tips and tricks for getting the best results from HP Latex printers when printing on textiles.

What are the primary types of textiles?

The terms 'textile' and 'fabric' are used interchangeably in the industry. Some of the common types of textiles are:

- **Heavy knits** – Textiles with a weight of 250 – 400 g/m^2 (23 – 37 g/sq.ft or 7.37 – 11.80 oz/yd^2). They are used as an alternative to PVC banners due to their soft touch and attractive finish. There is a very wide variety available, including both coated and uncoated types.
- **Soft knits** – Textiles with a weight of 250 g/m^2 (23 g/sq.ft or 7.37 oz/yd^2) or less. They have a look and feel which is softer and flows better than that of heavy knit materials. They are commonly used indoors for retail and POP applications, for exhibition and displays, and for interior decoration.
- **Backlit textiles** – Provide an attractive alternative to traditional lightboxes made from PVC banner or PET film. There are two different kind of backlit textiles — coated or treated:
    - **Coated:** Is normally a light, woven textile with a polymer layer of coating (only on one side) that allows better light diffusion. This coating modifies the touch and feel of the material, adding stiffness and a colder feeling.
    - **Treated:** Most are knitted textiles with a greater grammage. The treatment is a dip coating. The manufacturer includes a flame-retardant component since most of the applications will be indoor. The dip coating allows the material to maintain its touch and feel. However, due to the knitted property of the material, they are more open which causes the printed color saturation to be less than that of a coated textile.
- **Flags** – A thin and almost transparent textile, commonly associated with country and event 'flags' but also increasingly used for eye-catching signage and decoration applications. An example would be the indoor tear drops which are referred to in the following pages. They have a weight lower than 120 g/m^2 (11 g/sq.ft or 3.54 oz/yd^2).
- **Stretch textiles** – They can be heavy or soft knit depending on the kind of yarn that is used to manufacture the base of the material. The main application for this kind of textile is SEG — Silicone Edge Graphics. The final use and application may be either frontlit or backlit.

Recommended list of textiles

Classification

The following table lists of substrates classified according to the previous chapter:

Media Vendor name	Material	*Soft Signage*					
		Frontlit					Backlit
		Heavy knit	Soft knit	Stretch	Indoor tear drops	Outdoor	
Aurich Textilien (TVF in NA)	DigiCompetition 2264EFRL		●				
	DigiFacination 6178FRL				●		
	DigiPanorama 3172FRL	●					
	DigiStretch 2157FRL			●			
	GeoMesh 3158FL					●	
	Supernova 3179FRL	●					
Aberdeen	6533 Premium Heavy Knit	●					
Aurora	Expressions Décor Semi-Gloss Canvas		●				
Berger	3893-2665 Blackout Directo FR	●					
	4001-6 PES Tafetta 55 FR				●		
	4280-77 Universal Display 250FR WS		●				
	4915-26 XXL Spinnaker FR				●		
Dairiki	DK-003 Shark		●				
Signet Mills (Endurafab)	Frontlit		●				
	Frontlit FR		●				
	Frontlit Premier	●					
	Frontlit Premier FR	●					
	Frontlit Stretch			●			
	Frontlit Stretch FR			●			
HP	HP Durable Backlit Fabric*						●
KREA	1056-16 Blackback Soft		●				
Mehler Texnologies	AIRTEX magic FR blockout	● (2-sided)					

* Recommendation: Roll the prints to avoid fold marks. **NOTE:** To be fully aware and informed of all the recommendations, read the Comments and Technical notes in Media Solutions Locator.

Media Vendor name	Material	*Soft Signage*					
		Frontlit					Backlit
		Heavy knit	Soft knit	Stretch	Indoor tear drops	Outdoor	
Neschen	FILMOtex Artist Mambo PTX*						●
	FILMOtex Silencio 2.5 white PTX	●					
	FILMOtex Silencio 5 white	●					
	FILMOtex Silencio 10 white	●					
	FILMOtex Softimage 240 PTX		●				
	FILMOtex Spinnaker Economy DTX				●		
	FILMOtex Blackout I PTX	●					
PONGS	DirectTex Spinnaker Economy				●		
	PrintTex Softimage 240		●				
	PrintTex Artist Mambo*						●
	PrintTex Blockout I	●					
	PrintTex Silencio 10	●					
	PrintTex Silencio 5	●					
	PrintTex Silencio 2.5	●					
PremEx DuraVibe	5196B Leenane Blockout	●					
Serge Ferrari	Alphalia Silent AW	●					
	Alphalia Silent AW LUX	●					
Ultraflex	Ultrapoplin PES S240		●				
	VorTex Stretch D229			●			
	VorTex Mambo S170*						●
Verseidag	B4011 Seemee Corpus Blockout	●					
	B4073 Seemee pure! Insight Supreme		●				

* Recommendation: Roll the prints to avoid fold marks. **NOTE:** To be fully aware and informed of all the recommendations, read the Comments and Technical notes in Media Solutions Locator.

Media Vendor Distribution

The following table offers a list of substrates classified according to the previous chapter:

WIDTH – **3.2m (126")**

Media Vendor name	Distribution			
	APJ	EMEA	Latin America	North America
Aberdeen				•
Aurich Textilien	•	•	WIP	•
Aurora	•	•	•	•
Berger	•	•	•	•
Signet Mills (Endurafab)				•
HP	•	•	•	•
KREA		•		
Mehler Texnologies	•	•	•	•
Neschen	WIP	•	WIP	WIP
PONGS	•	•	WIP	•
Serge Ferrari	•	• (2,7m)	•	• (2,7m)
Ultraflex	•	•	•	•
Verseidag	•	•	•	•

WIDTH – **≤1.6m (64")**

Media Vendor name	Distribution			
	APJ	EMEA	Latin America	North America
Aberdeen				•
Aurich Textilien	•	•	WIP	•
Aurora	•	•	•	•
Berger	•	•	•	•
Dairiki	• (1,1m)			
Signet Mills (Endurafab)				•
HP	•	•	•	•
KREA		•		
Mehler Texnologies	•	•	•	•
Neschen	WIP	•	WIP	WIP
PONGS	•	•	WIP	•
PremEx DuraVibe	•	•	WIP	•
Serge Ferrari	•	•	•	•
Ultraflex	•	•	•	•
Verseidag	•	•	•	•

Tested and validated media presets

The following table offers the print modes recommended to achieve the best results. Once the media preset is installed, there will normally be two different print modes—*production* and *quality*:

Media Vendor	Material	HP Latex 3X00	HP Latex 1500	HP Latex 5XX	HP Latex 1XX, 3XX
Aurich Textilien (TVF in NA)	DigiCompetition 2264EFRL	10p6c170% 14p6c260%	12p6c170% 14p6c230%	16p6c185% 20p6c200%	16p6c185% 20p6c200%
	DigiFacination 6178FRL	10p6c170% 14p6c200%	12p6c170% 14p6c200%	16p6c170% 20p6c185%	-
	DigiPanorama 3172FRL	10p6c170% 14p6c260%	12p6c170% 14p6c260%	16p6c185% 20p6c200%	16p6c185% 20p6c200%
	DigiStretch 2157FRL	10p6c170% 14p6c200%	12p6c170% 14p6c200%	16p6c185% 20p6c200%	16p6c185% 20p6c200%
	GeoMesh 3158FL	10p6c170% 14p6c200%	12p6c170% 14p6c200%	16p6c150% 20p6c185%	16p6c150% 20p6c200%
	Supernova 3179FRL	10p6c170% 14p6c260%	12p6c170% 14p6c230%	16p6c185% 20p6c200%	16p6c185% 20p6c200%
Aberdeen	6533 Premium Heavy Knit	-	12p6c200% 14p6c230%	-	-
Aurora	Expressions Décor Semi-Gloss Canvas	10p6c150% 14p6c170%	12p6c130% 14p6c150%	-	-
Berger	3893-2665 Blackout Directo FR	-	12p6c150% 14p6c170%	16p6c185% 20p6c200%	16p6c185% 20p6c200%
	4001-6 PES Tafetta 55 FR	10p6c120% 14p6c130%	12p6c120% 14p6c130%	20p6c120%	-
	4280-77 Universal Display 250FR WS	10p6c170% 14p6c200%	12p6c170% 14p6c200%	16p6c230% 20p6c260%	16p6c200% 20p6c230%
	4915-26 XXL Spinnaker FR	10p6c130% 14p6c150%	14p6c130% 18p6c150%	16p6c110%	-
Dairiki	DK-003 Shark	10p6c150% 14p6c170%	12p6c150% 14p6c170%	12p6c150% 12p6c170%	12p6c150% 12p6c170%
Endurafab	Frontlit	10p6c170% 14p6c200%	12p6c170% 14p6c200%	12p6c150% 20p6c200%	12p6c150% 20p6c200%
	Frontlit FR	10p6c170% 14p6c200%	12p6c170% 14p6c200%	12p6c150% 20p6c200%	12p6c150% 20p6c200%
	Frontlit Premier	10p6c170% 14p6c230%	12p6c170% 14p6c230%	12p6c150% 20p6c200%	12p6c150% 20p6c200%
	Frontlit Premier FR	10p6c170% 14p6c230%	12p6c170% 14p6c230%	12p6c150% 20p6c200%	12p6c150% 20p6c200%
	Frontlit Stretch	14p6c170% 20p6c200%	12p6c170% 14p6c200%	12p6c150% 20p6c200%	12p6c150% 20p6c200%
	Frontlit Stretch FR	14p6c170% 20p6c200%	12p6c170% 14p6c200%	12p6c150% 20p6c200%	12p6c150% 20p6c200%
HP	HP Durable Backlit Fabric	18p6c200% 18p6c230%	18p6c200% 18p6c230%	16p6c200% 20p6c230%	16p6c200% 20p6c200%
KREA	1056-16 Blackback Soft	10p6c150% 14p6c170%	12p6c150% 14p6c170%	-	-
Mehler Texnologies	AIRTEX magic FR blockout	10p6c140% 14p6c170%	12p6c140% 14p6c170%	12p6c150% 16p6c185%	16p6c150% 20p6c170%

Media Vendor	Material	HP Latex 3X00	HP Latex 1500	HP Latex 5XX	HP Latex 1XX, 3XX
Neschen	FILMOtex Artist Mambo PTX	14p6c200% 18p6c230%	14p6c230% 18p6c260%	16p6c200% 20p6c230%	16p6c200% 20p6c230%
	FILMOtex Silencio 5 white	14p6c200% 20p6c200%	14p6c200% 18p6c200%	16p6c200% 20p6c230%	16p6c200% 20p6c230%
	FILMOtex Silencio 10 white	14p6c230% 20p6c230%	14p6c230% 18p6c230%	-	-
	FILMOtex Softimage 240 PTX	10p6c170% 14p6c200%	12p6c170% 14p6c200%	16p6c230% 20p6c260%	16p6c200% 20p6c230%
	FILMOtex Spinnaker Economy DTX	10p6c130% 14p6c150%	14p6c130% 18p6c150%	16p6c110%	-
	FILMOtex Silencio 2.5 white PTX	14p6c200% 20p6c200%	14p6c200% 18p6c200%	16p6c200% 20p6c230%	16p6c200% 20p6c230%
	FILMOtex Blackout I PTX	10p6c170% 14p6c200%	12p6c170% 14p6c200%	12p6c170% 16p6c200%	
PONGS	DirectTex Spinnaker Economy	10p6c130% 14p6c150%	14p6c130% 18p6c150%	16p6c110%	-
	PrintTex Softimage 240	10p6c170% 14p6c200%	12p6c170% 14p6c200%	16p6c230% 20p6c260%	16p6c200% 20p6c230%
	PrintTex Artist Mambo	14p6c200% 18p6c230%	14p6c230% 18p6c260%	16p6c200% 20p6c230%	16p6c200% 20p6c230%
	PrintTex Blockout I	10p6c170% 14p6c200%	12p6c170% 14p6c200%	12p6c170% 16p6c200%	-
	PrintTex Silencio 10	14p6c230% 20p6c230%	14p6c230% 18p6c230%	-	-
	PrintTex Silencio 5	14p6c200% 20p6c200%	14p6c200% 18p6c200%	16p6c200% 20p6c230%	16p6c200% 20p6c230%
	PrintTex Silencio 2.5	14p6c200% 20p6c200%	14p6c200% 18p6c200%	16p6c200% 20p6c230%	16p6c200% 20p6c230%
PremEx DuraVibe	5196B Leenane Blockout	10p6c170% 14p6c260%	12p6c170% 14p6c260%	16p6c185% 20p6c200%	16p6c185% 20p6c200%
Serge Ferrari	Alphalia Silent AW	-	14p6c170% 18p6c200%	12p6c130% 16p6c170%	-
	Alphalia Silent AW LUX	-	14p6c170% 18p6c200%	-	-
Ultraflex	Ultrapoplin Softimage D240	10p6c170% 14p6c200%	12p6c170% 14p6c200%	16p6c200% 20p6c230%	16p6c200% 20p6c230%
	VorTex Stretch D229	14p6c170% 18p6c200%	12p6c170% 14p6c200%	-	-
	VorTex Mambo S170	14p6c200% 18p6c230%	14p6c230% 18p6c260%	16p6c200% 20p6c230%	16p6c200% 20p6c230%
Verseidag	B4011 Seemee Corpus Blockout	14p6c150% 18p6c200%	14p6c150% 18p6c200%	-	-
	B4073 Seemee pure! Insight Supreme	10p6c130% 14p6c150%	12p6c150% 14p6c170%	12p6c130% 12p6c150%	-

Tested and validated media presets for the HP Latex R1000 and HP Latex R2000

Media Vendor	Material	HP Latex R1000	HP Latex R2000
HP	HP Durable Backlit Fabric	14p6c230%	14p6c230%
Neschen	FILMOtex Artist Mambo PTX	14p6c230%	14p6c230%
PONGS	PrintTex Artist Mambo	14p6c230%	14p6c230%
Ultraflex	VorTex Mambo S170	14p6c230%	14p6c230%

Key test to getting durable Soft Signage textiles

One important property of printed textiles used in applications like retail PoP and exhibition graphics is their “dry rub” performance. The standard used to measure the dry rub test is **ISO 105-X12.**

1. Why the dry rub test is so important

Textiles with good dry rub test results are suitable for sewing, finishing and transporting. Further, they are easily installable without being damaged. HP is constantly analyzing new materials to add to the numbers of textiles that are excellent for use with HP Latex Inks.

2. How dry rub is measured

One section of ISO 105-X12 establishes the procedure for testing this property. It is executed by applying a downward force of 9±0.2 Newtons at a rate of one cycle per second. The Taber Linear Abraser rubs 20 times back and forth in a straight line (10 times forward and 10 times backward) along a track of the dry sample, using a bleached cotton rubbing cloth. This cloth is evaluated to determine how it has been stained.

3. How dry rub test results are evaluated

After completing the test, three parameters are evaluated: *image damage*, *gloss change* and the *staining of the cotton rubbing cloth*. Textiles with good or excellent results are scored as a 4 or 5, respectively. Textiles printed with HP Latex Technology with a dry rub performance equal to or greater than a 4 are a good fit for Soft Signage applications.

1. *Taber Linear Abraser*
2. *Testing a textile sample*
3. *Color fastness to rubbing is categorized from 1 to 5. The higher the number, the better the fastness.*

Considerations when printing on backlit materials

There are a number of very important matters to keep in mind:

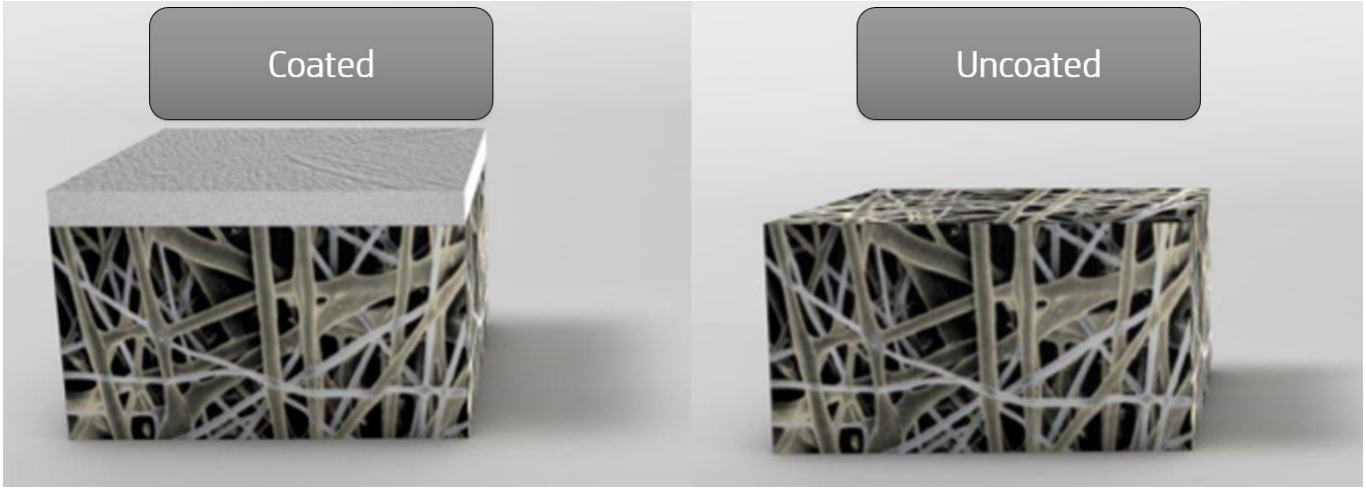
- **Amount of ink** – Because the final output will be installed in a lightbox, an ample saturation of ink on all backlit textiles is required. It is recommended to use 200% of ink, or as much saturation as the media will handle well.

- **Number of passes** – As the printers will be using a high volume of ink, the number of passes must also increase. On average, the HP Latex 3X00 and Latex 1500 will run textiles between 14 and 18 passes. The HP Latex 1XX, 3XX and 5XX Series Printers will run textiles between 16 and 20 passes. The high number of passes also aids overall image quality, and helps avoid possible vertical banding issues, depending on the material and application.

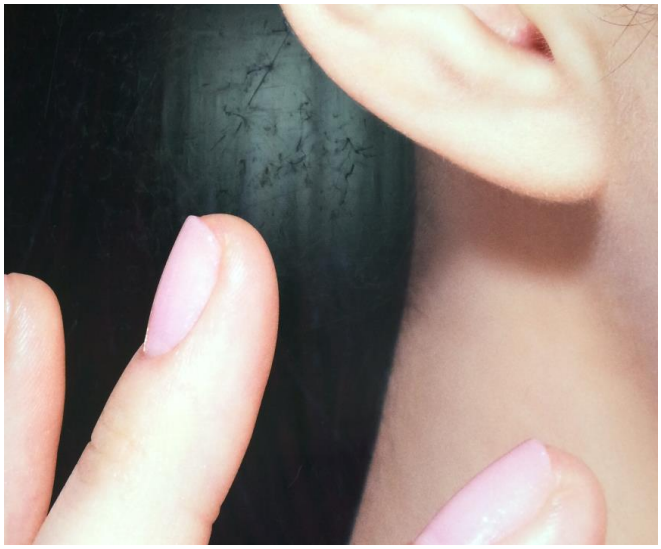
- **ICC profile** – Due to the final application requirement of a light source behind the printed fabric, the target patches that are read to create an ICC profile must be read in **transmissive mode** with an external spectrophotometer. This is why colors would appear oversaturated for frontlit applications.

- **Color Calibration** – The internal spectrophotometer in the printers cannot read in transmissive mode. Accordingly, any color calibration must be done using an external spectrophotometer.

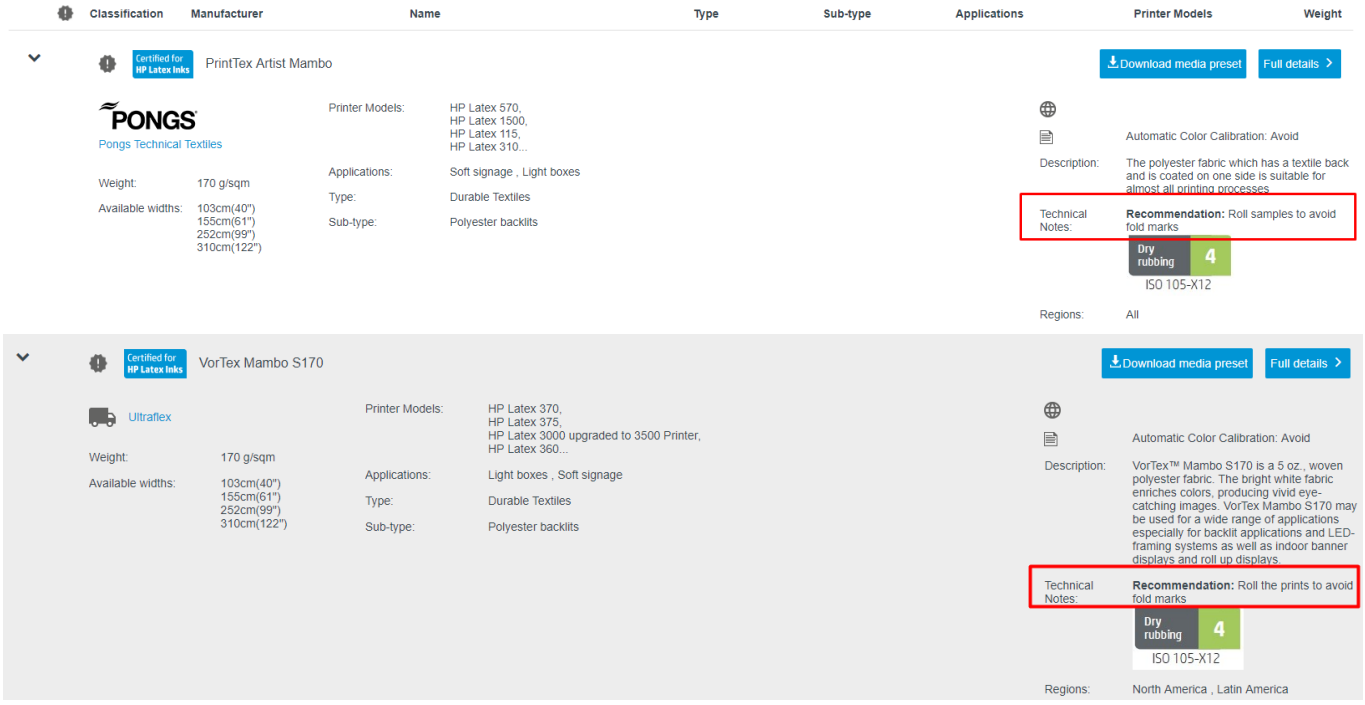
As explained previously, there are two different kinds of backlit textiles – coated or treated. This picture shows the additional layer that is applied to a coated textile vs an uncoated one:

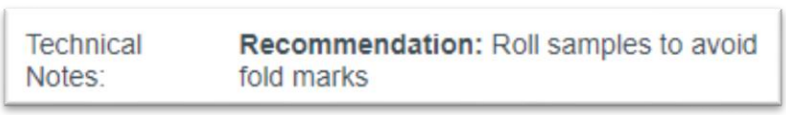


One primary concern when printing with coated textiles are fold marks and dark lines. The first ones are more significant when the fabrics are used for backlit signage, and can be most noticeable in dark areas of the prints, on the other hand, the dark lines are more visible on the unprinted and lighter areas. Light makes the wrinkles and the defects more evident, as seen in the following picture:



The backlit textiles types of **PONGS PrintTex Artist Mambo** and **Ultraflex VorTex Mambo S170** recommended in the previous pages, are also coated. Some marks can be seen in these prints after handling, sewing on silicon strips or from folding the prints, during finishing or in packaging the prints for shipment.





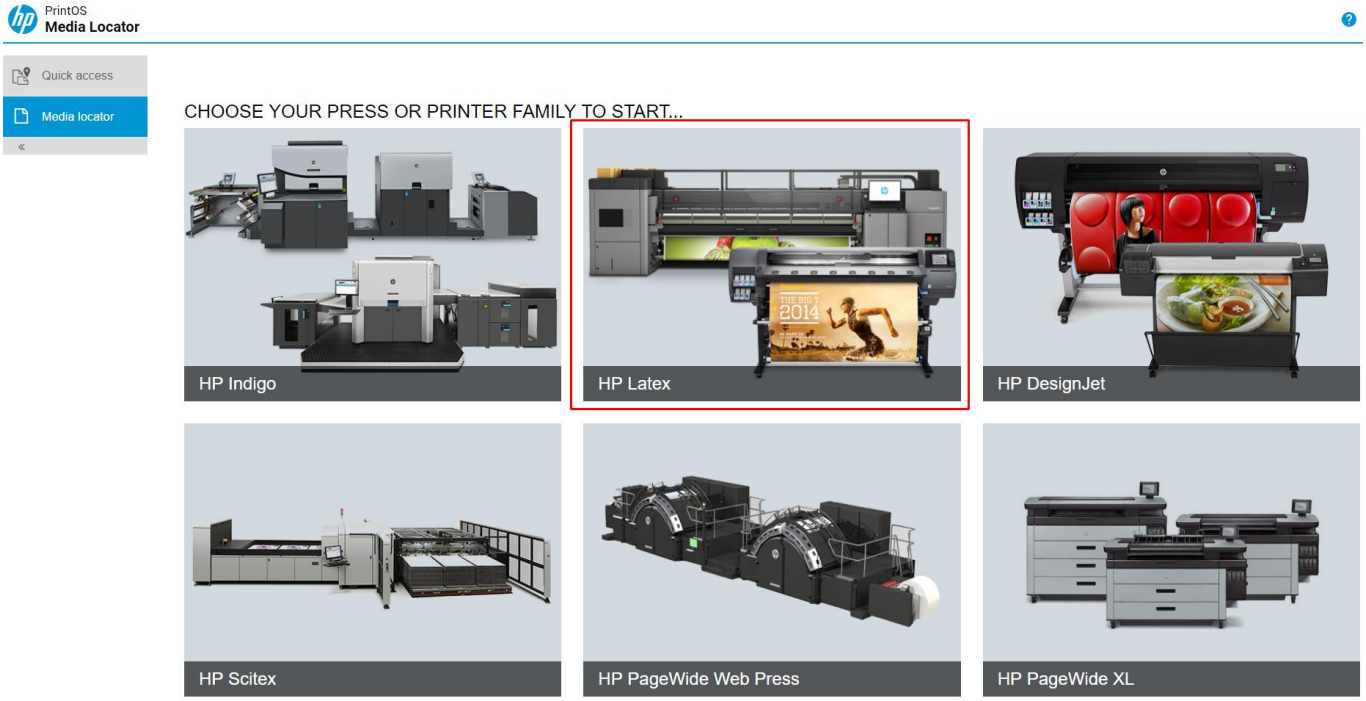
Where to find the media presets

There are different ways to search, find and install the media presets:

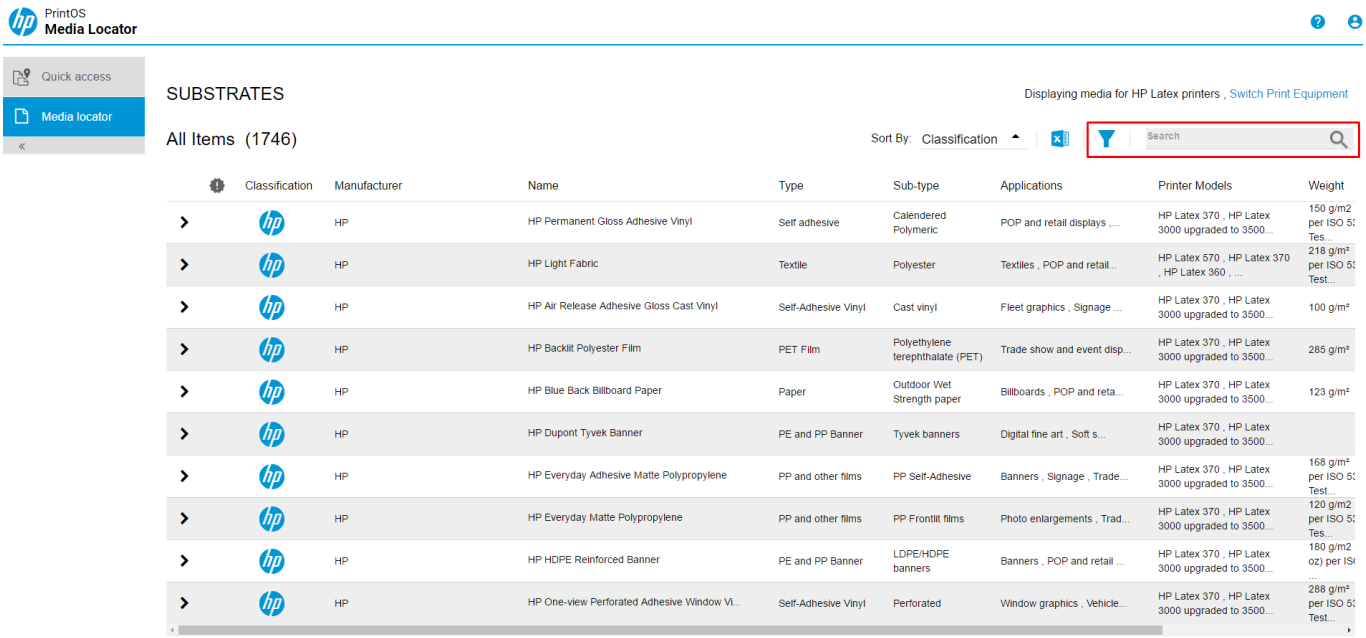
Using the Media Locator

All the profiles are available at the HP Media Locator, which is an application within PrintOS: https://www.printos.com/ml/#/medialocator.

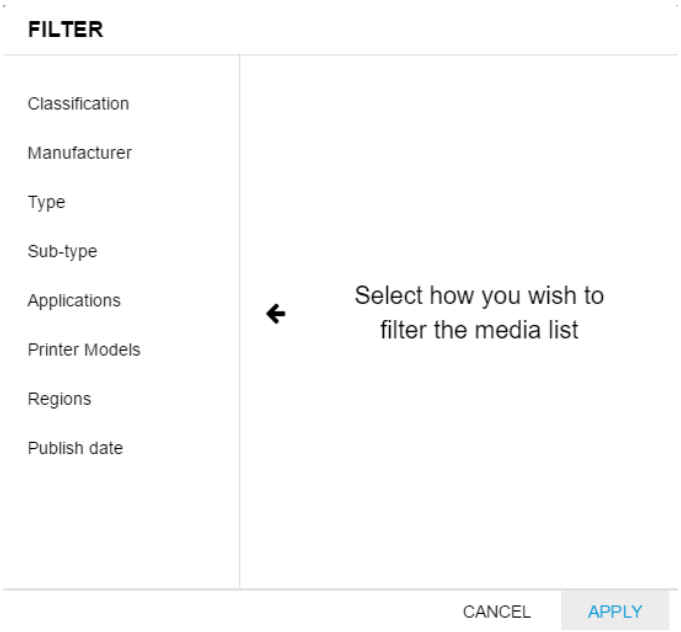
1. Click the **HP Latex** button.



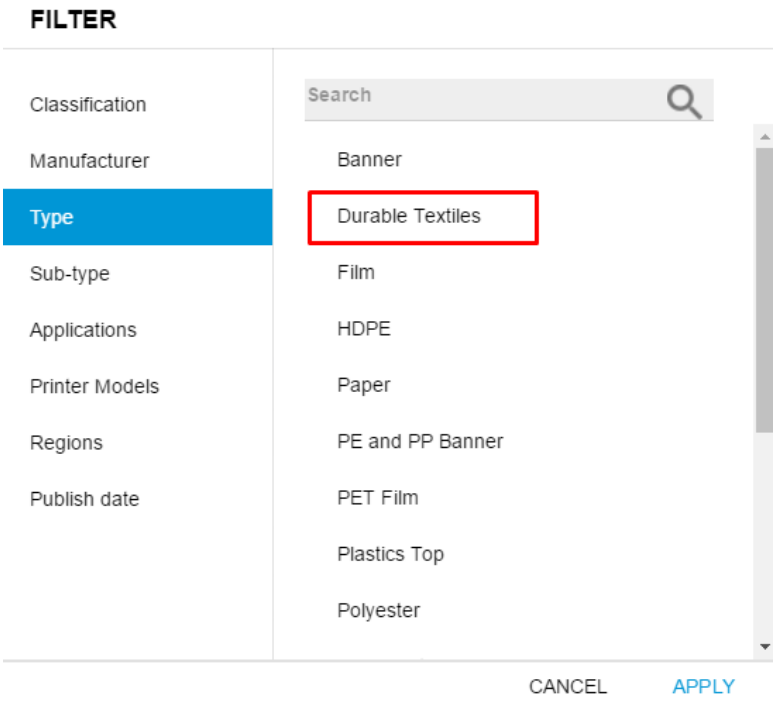
2. The filter button or the search field can be used to find the textiles recommended previously.



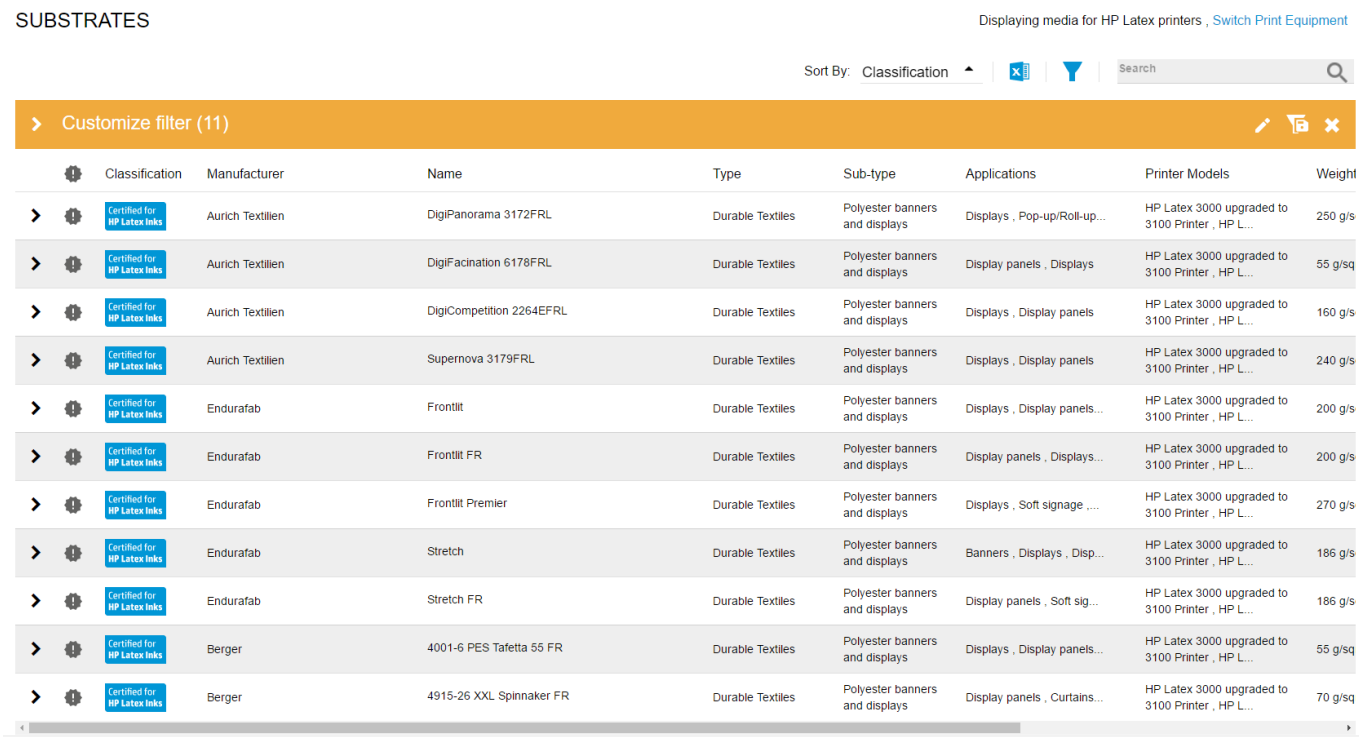
3. When the filter button FILTER is pressed, a drop-down list will be shown; it can be filtered by: classification, manufacturer, type, sub-type, application, printer model, etc.



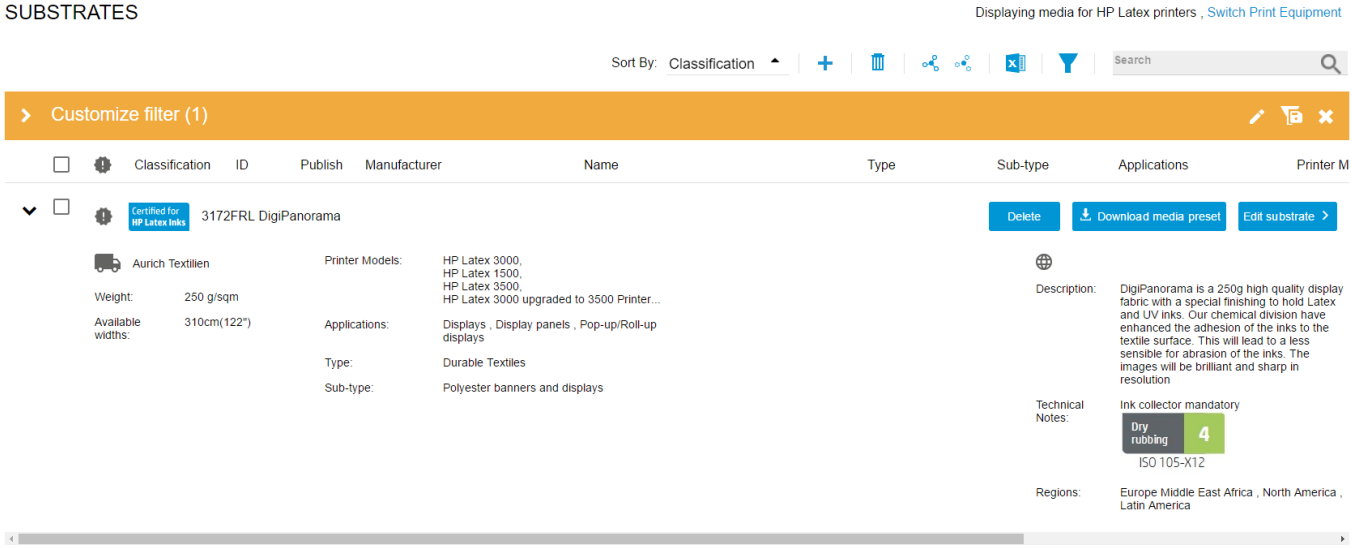
4. The materials from the list will be found in a Type, called 'Durable Textiles.'



5. The full list of materials referred to in this document will be displayed.



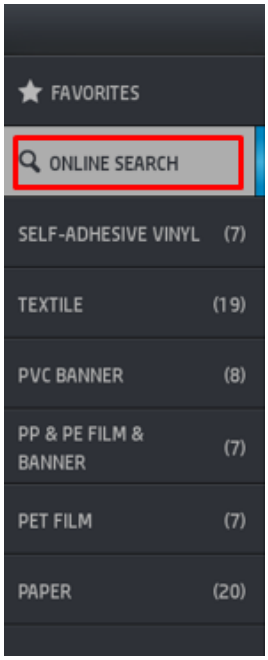
6. By clicking the “Show details” button  to the left of a media, information regarding the ink collector and results of the ISO 105-X12 dry rubbing test can be seen in the technical notes area.



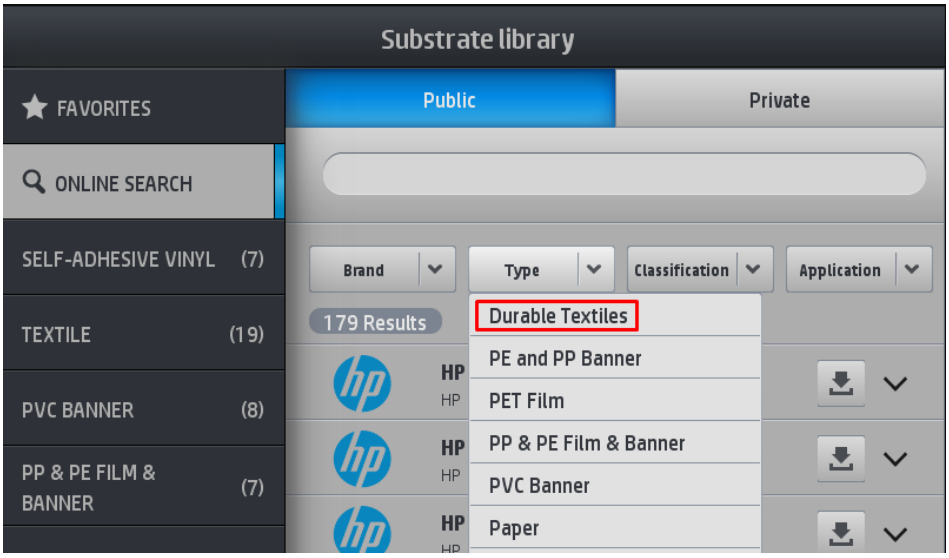
HP Latex 1XX, 3XX and 5XX printer front panels

The media presets can also be installed through the front panels of the printers:

1. Click on the **Online Search** button.



2. Filter by type and select **Durable Textiles** from the drop-down list to see the recommended materials.

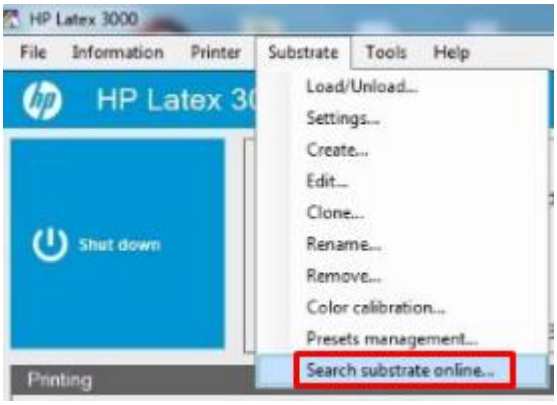


3. Click on the **Download** button  to install the media preset. If the RIP does not automatically synchronize with the printer, manually synchronize the media lists between the RIP and printer.

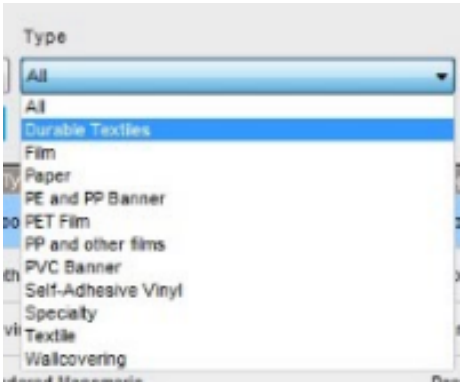
HP Latex 3X00 and 1500 printer IPSs

A media preset can also be installed through the IPS (the printer's PC):

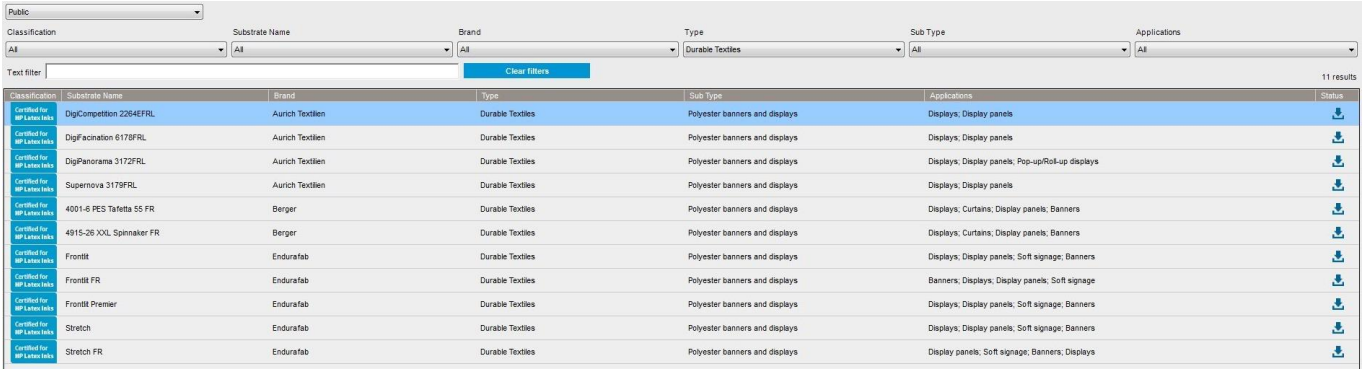
1. Click on **Substrates** and select **Search substrate online** from the drop-down list.



2. Filter by type and select **Durable Textiles** from the drop-down list in order to see the recommended materials.



3. Click the **Download** button  (found on the right side of the window), then the **Status** column, and wait until the installation process is finished (the icon will change to ).



Ink collector installation and usage recommendations

Before printing on porous textiles, the Ink Collector Kit should be installed. This is not available for the HP Latex 110, 115, 310, 315, 330 and 335. It is standard on the HP Latex 360, 365, 370, 375 and 3000. It is an accessory for the HP Latex 1500. In all cases, it is used to protect the printer from the ink that permeates through a porous substrate. The kit should be removed before printing on non-porous substrates.

To find out how to install the Ink Collector Kit, please read the user guide:

- **HP Latex 1500** – Chapter 9 – Accessories.
- **HP Latex 3000 series** – Chapter 3 – Handle the substrate.
- **HP Latex 500 series** – Chapter 3 – Handle the substrate and troubleshoot substrate issues.
- **HP Latex 36X and 37X only** – Chapter 3 – Handle the substrate and troubleshoot substrate issues.

Ink collector usage required per material

The following table lists the recommendation per media for all the HP Latex printers.

	Material	Is the ink collector required?
Aurich Textilien (TVF in NA)	DigiCompetition 2264EFRL	YES
	DigiFacination 6178FRL	YES
	DigiPanorama 3172FRL	YES
	DigiStretch 2157FRL	YES
	GeoMesh 3158FL	YES
	Supernova 3179FRL	NO
Aberdeen	6533 Premium Heavy Knit	YES
Aurora	Expressions Décor Semi-Gloss Canvas	NO
Berger	3893-2665 Blackout Directo FR	NO
	4001-6 PES Tafetta 55 FR	YES
	4280-77 Universal Display 250FR WS	NO
	4915-26 XXL Spinnaker FR	YES
Dairiki	DK-003 Shark	YES
Endurafab	Frontlit	YES
	Frontlit FR	YES
	Frontlit Premier	NO
	Frontlit Premier FR	NO
	Frontlit Stretch	YES
	Frontlit Stretch FR	YES
HP	HP Durable Backlit Fabric	NO
KREA	1056-16 Blackback Soft	NO
Mehler Texnologies	AIRTEX magic FR blockout	NO

Media Vendor	Material	Is the ink collector required?
Neschen	FILMOtex Artist Mambo PTX	NO
	FILMOtex Silencio 5 white	YES
	FILMOtex Silencio 10 white	YES
	FILMOtex Softimage 240 PTX	NO
	FILMOtex Spinnaker Economy DTX	YES
	FILMOtex Silencio 2.5 white PTX	YES
	FILMOtex Blackout I PTX	NO
PONGS	DirectTex Spinnaker Economy	YES
	PrintTex Artist Mambo	NO
	PrintTex Blockout I	NO
	PrintTex Silencio 10	YES
	PrintTex Silencio 5	YES
	PrintTex Silencio 2.5	YES
	Printex Softimage 240	NO
PremEx DuraVibe	5196B Leenane Blockout	NO
Serge Ferrari	Alphalia Silent AW	YES
	Alphalia Silent AW LUX	YES
Ultraflex	Ultrapoplin Softimage D240	NO
	VorTex Stretch D229	YES
	VorTex Mambo S170	NO
Verseidag	B4011 Seemee Corpus Blockout	NO
	B4073 Seemee pure! Insight Supreme	NO

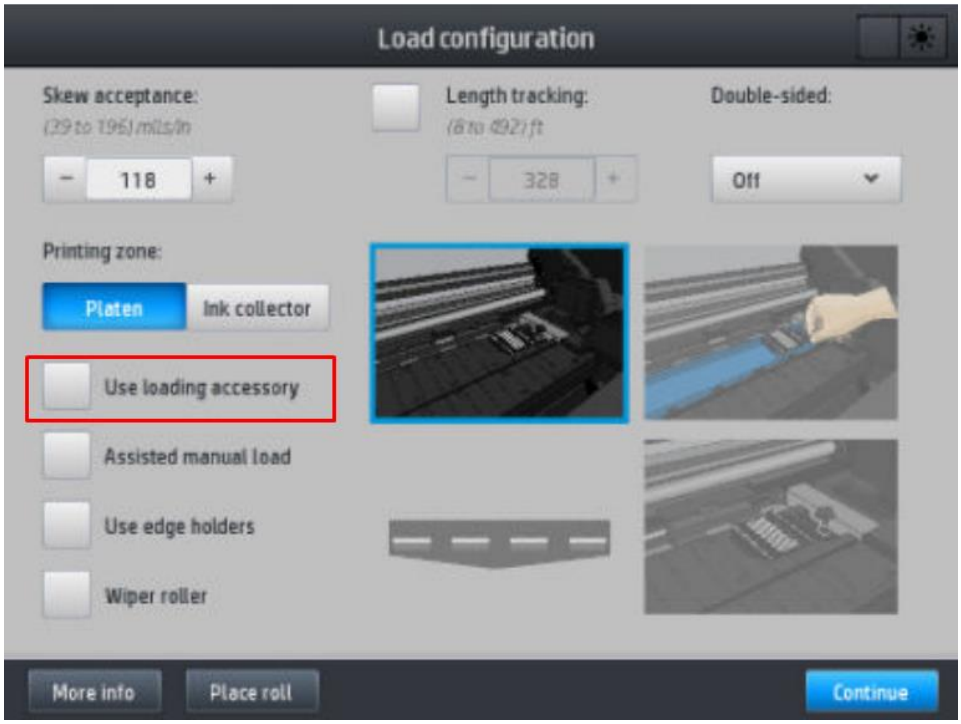
Using the media loading accessory with the HP Latex 500 and 300 series

The loading accessory is designed to help load certain substrates including banner, textiles and mesh. It is helpful and recommended when working with these substrates, but it is not required.

For specific instructions on how to use the media loading accessory, please read the user guide:

- HP Latex 500 series – Chapter 3 – Handle the substrate and troubleshoot substrate issues.

  IMPORTANT – Click the Use loading accessory button on the front panel during loading. This allows the printer to change the force applied to the pinch-wheels to help prevent wrinkles on light or delicate materials.



- HP Latex 36X and 37X only – Chapter 3 – Handle the substrate and troubleshoot substrate issues.

Post print processing

Depending on the finishing or coating the print materials have, a durability improvement has been observed when applying extra heat after printing.

Media Vendor	Material	Is extra heat needed?	Tested settings: Temperature and dwell time
Aurich Textilien (TVF in NA)	DigiCompetition 2264EFRL	NO	-
	DigiFacination 6178FRL	NO	-
	DigiPanorama 3172FRL	NO	-
	DigiStretch 2157FRL	NO	-
	GeoMesh 3158FL	NO	
	Supernova 3179FRL	NO	-
Aberdeen	6533 Premium Heavy Knit	NO	-
Aurora	Expressions Décor Semi-Gloss Canvas	NO	-
Berger	3893-2665 Blackout Directo FR	NO	-
	4001-6 PES Tafetta 55 FR	NO	-
	4280-77 Universal Display 250FR WS	NO	-
	4915-26 XXL Spinnaker FR	NO	-
Dariki	DK-003 Shark	NO	-
Endurafab	Frontlit	NO, but improves*	200ºC / 392ºF; 60 sec
	Frontlit FR	NO, but improves*	200ºC / 392ºF; 60 sec
	Frontlit Premier	NO, but improves*	200ºC / 392ºF; 60 sec
	Frontlit Premier FR	NO, but improves*	200ºC / 392ºF; 60 sec
	Frontlit Stretch	NO, but improves*	200ºC / 392ºF; 60 sec
	Frontlit Stretch FR	NO, but improves*	200ºC / 392ºF; 60 sec
HP	HP Durable Backlit Fabric	NO	-
KREA	1056-16 Blackback Soft	NO	-
Mehler Texnologies	AIRTEX magic FR blockout	NO	-
Neschen	FILMOtex Artist Mambo PTX	NO	-
	FILMOtex Silencio 5 white	NO	-
	FILMOtex Silencio 10 white	NO	-
	FILMOtex Softimage 240 PTX	NO	-
	FILMOtex Spinnaker Economy DTX	NO	-
	FILMOtex Silencio 2.5 white PTX	NO	
	FILMOtex Blackout I PTX	NO	
PONGS	DirectTex Spinnaker Economy	NO	-
	Printex Softimage 240	NO	-
	PrintTex Artist Mambo	NO	-
	PrintTex Blockout I	NO	-
	PrintTex Silencio 10	NO	-
	PrintTex Silencio 5	NO	-
	PrintTex Silencio 2.5	NO	-
PremEx DuraVibe	5196B Leenane Blockout (Cotton Linen)	NO	-
Serge Ferrari	Alphalia Silent AW	NO	-
	Alphalia Silent AW LUX	NO	-
Ultraflex	Ultrapoplin Softimage D240	NO	-
	Vortex Stretch D229	NO	-
	VorTex Mambo S170	NO	-
Verseidag	B4011 Seemee Corpus Blockout	NO	-
	B4073 Seemee pure! Insight Supreme	NO	-

* The durability (including the dry rub, wet rub and scratchability tests) of some materials from the list are improved after adding the recommended settings from the previous table. There are different kinds of devices that can be used to achieve this temperature: oil drum calender heat transfers, infrared heating systems, clamshell heat presses, and more. The most important factor is to assure the surface of the printed material heats up to 200ºC (392ºF).

Additional maintenance operations when printing on porous materials

HP Latex 3X00

The following is part of the "Summary of maintenance operations" section found in the user guide, in **Chapter 8 – Hardware maintenance**, where typical maintenance operations are explained as follows:

- Weekly cleaning
- 125 liter maintenance
- 500 liter maintenance
- 1,500 liter maintenance

When printing on textiles, since most of them are porous, they require print modes with a higher number of passes and more ink compared to other substrates that can be printed on with HP Latex inks. The following table describes the additional maintenance* that the end-user will need to perform.

	Tasks	
3L	**Clean** collector, aerosol filter, protector, printer output and platen and carriage	15 min
40L	**Clean** aerosolinlet, condensate **Replace** collector foams	30 min
500L	**Clean** curing fans, dryers lamps glass, dryer fans **Check** protector and media edge holders	60 min
1500L	Clean impigning plate Replace ink collector **Replace SMK – Textile** (Curing parts, Scan axis pats, carriage parts, drop detector, web wipe engage system, diverter wheels)	2 days

* These maintenance tasks are scheduled within HP Print Care (also explained in chapter 7 of the user guide) together with other tasks.

HP Latex 1500

The following is a part of the "Summary of repair kits and maintenances" section that can be found in the user guide within **Chapter 10 – Hardware maintenance**, where the usual maintenance operations are explained as follows:

- Weekly cleaning
- 450 liter maintenance
- 900 liter maintenance
- 1,500 liter maintenance
- 3,000 liter maintenance

When printing on textiles, since most of them are porous, they require print modes with a higher number of passes and more ink compared to other substrates that can be printed on with HP Latex inks. The following table describes the additional maintenance* that the end-user will need to perform.

	Tasks	
3L	**Clean** collector, aerosol filter, protector, printer output and platen and carriage	15 min
40L	**Clean** aerosolinlet, condensate **Replace** collector foams	30 min
500L	**Clean** curing fans, dryers lamps glass, dryer fans **Check** protector and media edge holders	60 min
1500L	Clean impigning plate Replace ink collector **Replace SMK – Textile** (Curing parts, Scan axis pats, carriage parts, drop detector, web wipe engage system, diverter wheels)	2 days

* These maintenances are scheduled within HP Print Care (also explained in chapter 8 of the user guide) together with other maintenance tasks.

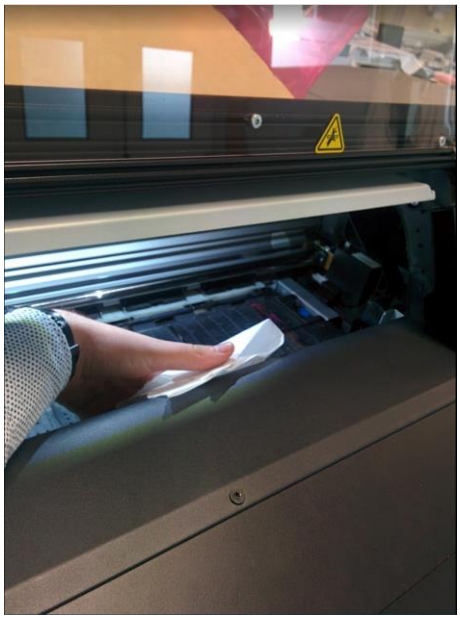
HP Latex 1XX, 3XX and HP Latex 5XX

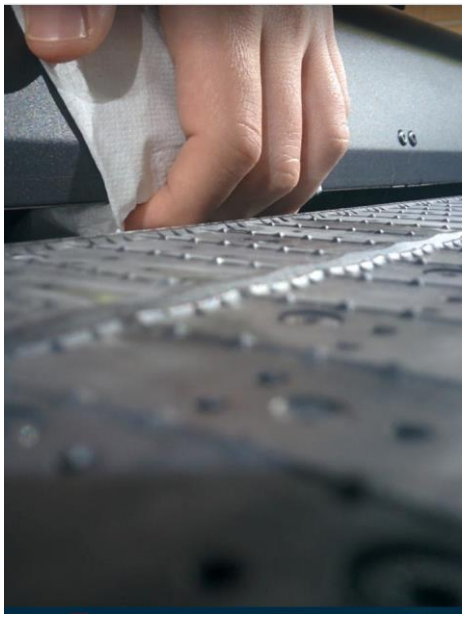
Due to the porous nature of textile media, ink on the media tends to behave somewhat differently than it would when printing with other materials. Evaporated components of the ink may condense on cold surfaces of the printer, leaving an oily residue.

- To prevent condensation under the printed material from transferring onto the printed job, always use the output platen protector accessory as described in **Chapter 3 – Handle the substrate and troubleshoot substrate issues** of the user guide.
- To prevent drops of condensate from falling onto subsequent jobs, perform the following user maintenance after any intensive usage of textiles (approximately after every roll):

Clean the curing system internal cover lip

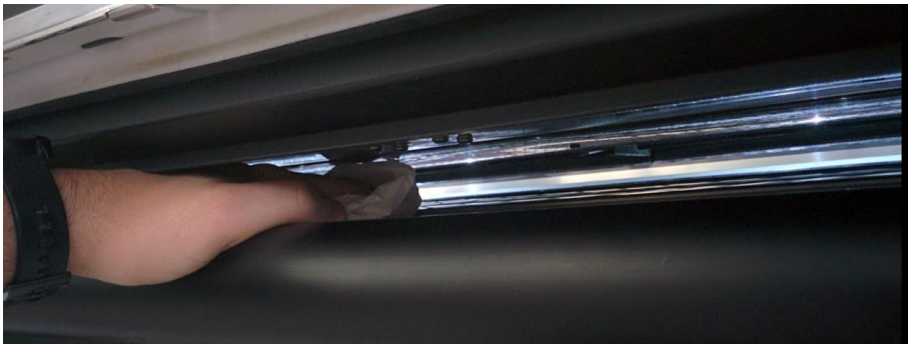
1. Turn off the printer.
2. Open the main window.
3. With a soft cloth or piece of paper, remove any oily drops that have formed on the edge of the cover's internal lip.





Clean the output platen

1. Turn off the printer.
2. Remove the output platen protector accessory.
3. With a soft cloth or piece of paper, clean any oily drops that may have condensed under the accessory.
4. Make sure to properly clean all the steps, screws and features of the platen.



Help yourself by wrapping the cloth around a soft tool to reach the inner parts of the output platen.

With certain textile materials, due to rougher media edges, an increased distance to the material and particular aerodynamic effects, it is more likely that the line sensor gets dirty and loses sensitivity. If the line sensor is dirty, you may notice that:

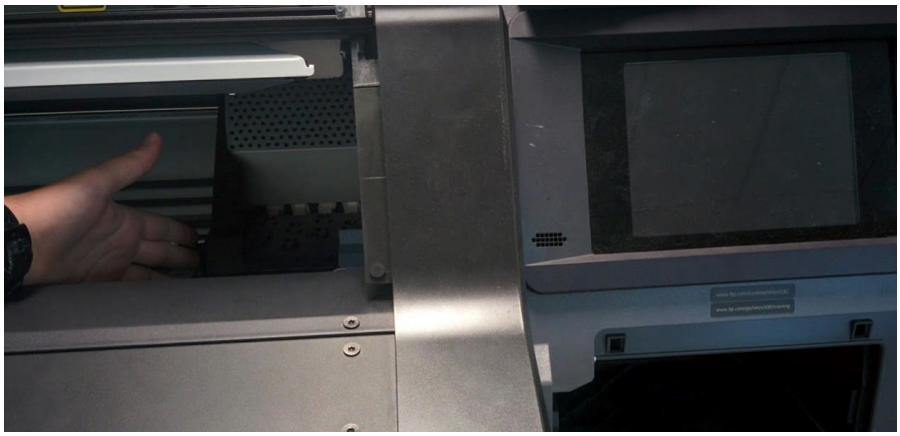
- An opaque media cannot be found or its width cannot detected: The printer uses the line sensor to “find” the media’s edges. If the sensor is dirty it may not be able to discriminate between the print platen and the media itself.
- The printer is unable to determine the level of usage of the maintenance cartridge: The printer uses the line sensor to read a special pattern on the maintenance cartridge to determine its usage. If the sensor is dirty it may not be able to read the pattern.

If the problems above start to occur frequently, you may need to clean the line sensor in order to regain the full functionality of the printer.

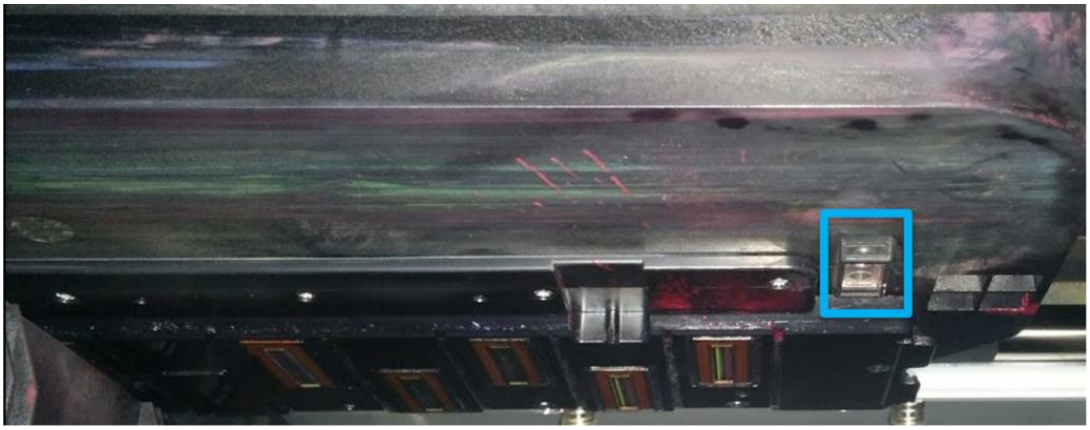
Cleaning the line sensor

From the front panel, perform a maintenance cartridge replacement and remove the maintenance cartridge.

1. Turn off the printer.
2. With the printer off, open the window and manually move the carriage to the right side.



You will have access to the line sensor from the maintenance cartridge door.



3. With a soft cloth or piece of paper, clean the line sensor. Be careful not to touch the printheads.
4. Close the window and the maintenance cartridge door and turn on the printer.
5. Finish replacing the maintenance cartridge.

IMPORTANT: It is not required to perform any maintenance on the line sensor if you do not see the problems described above. An excessive cleaning of the sensor may lead to undesired issues and the risk of damaging the printheads.

HP Latex 1XX and 3XX only

Due to hardware differences, the 3XX series printers are more susceptible than the 5XX series ones to the accumulation of condensation and aerosol when printing on all media, especially textiles. The procedures described above may need to be performed more frequently or more intensively on the 3XX series.

In addition to the procedures described above, perform the following two maintenance cleanings after an intensive use of textiles:

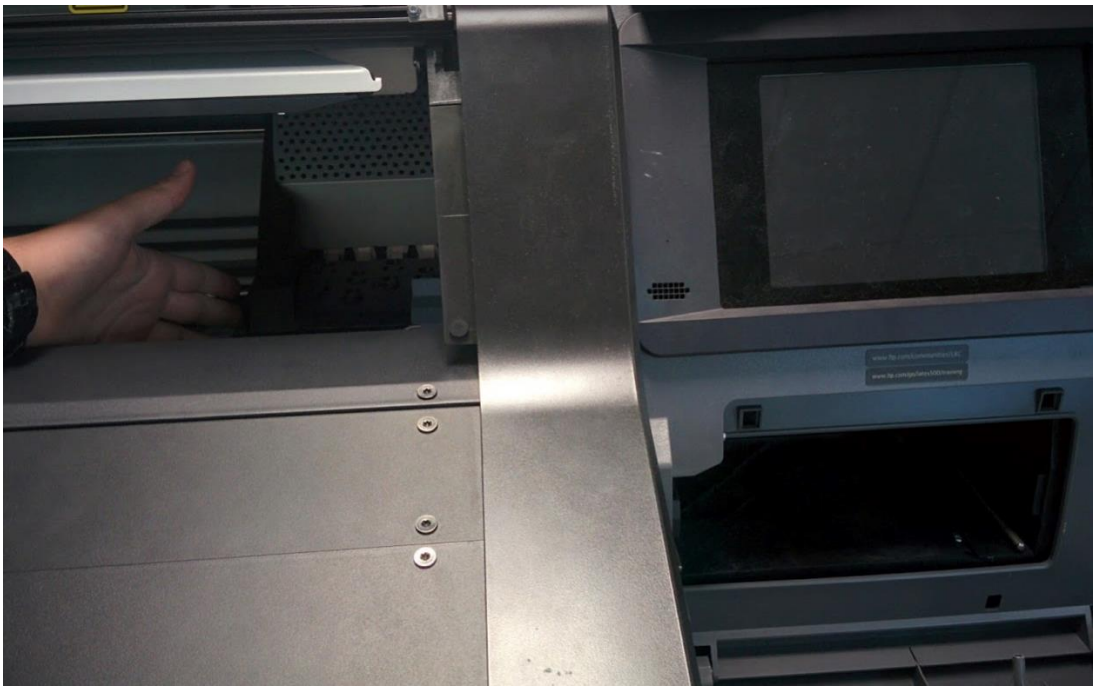
Clean the vapor removal array

With a soft cloth or piece of paper, clean any oily drops under the vapor removal array (the outer array of fans). Pay special attention to the left and right corners.

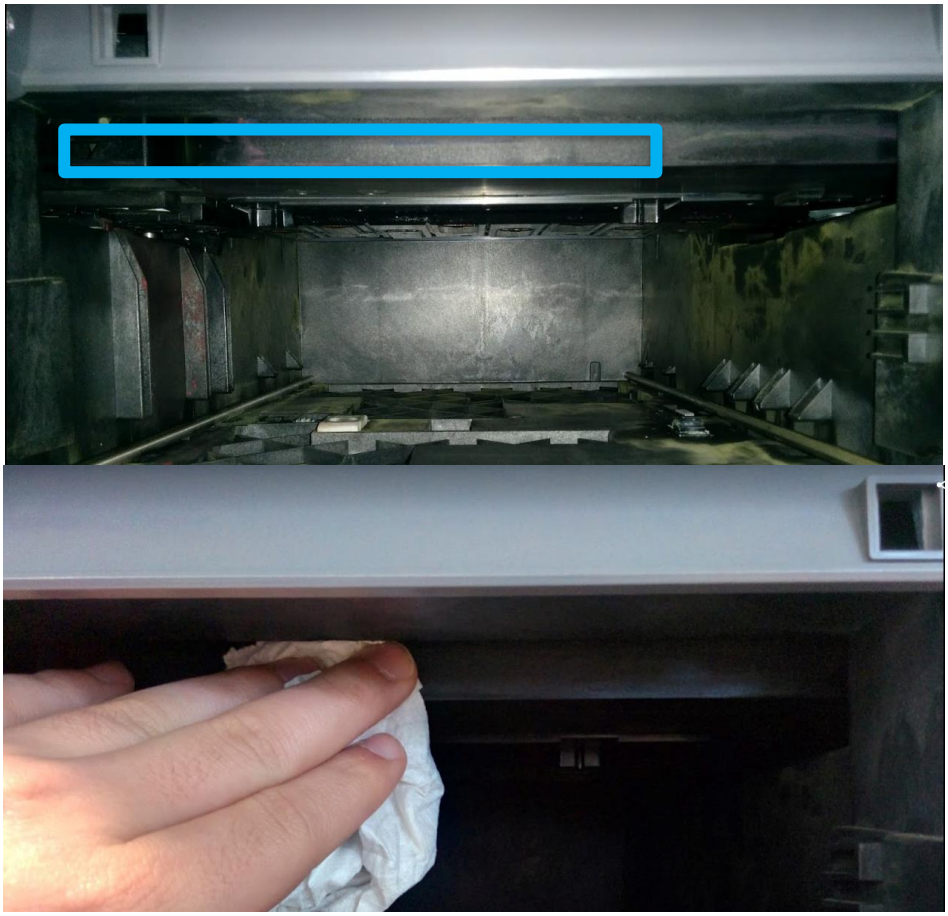
Clean the front of the carriage

From the front panel, perform a maintenance cartridge replacement and remove the maintenance cartridge.

1. Turn off the printer.
2. With the printer off, open the window and manually move the carriage to the right side.



You will have access to the carriage from the maintenance cartridge door.



3. With a soft cloth or piece of paper, clean the exterior of the carriage.
4. Be careful not to touch the line sensor or the printheads.
5. Close the window and the maintenance cartridge door and turn on the printer.
6. Finish replacing the maintenance cartridge.