Cookbook

Customized Clothing with HP Latex Printers

1   Overview

Who can benefit from reading this document?

This document is intended for:

- Owners and operators of any HP Latex Printer, with special focus on the HP Latex 110 Printer, the HP Latex 300 series printers and the HP Latex 500 series printers.
- HP Latex customer support, marketing and sales organizations

This document provides information about:

- The process to transfer a "heat transfer material" to clothing, including printing on an HP Latex Printers, cutting with a contour cutter, weeding the excess of material and transferring the material to the fabric.
- A list of heat transfer materials that have been tested to guarantee good printability and good transfer to the fabric.
- Washing resistance of transferred materials, when available.

2   Introduction to "Customized Clothing"

HP Latex Printers can print onto standard "heat transfer material" available in the market for inkjet printing. This is a material which usually consists of a liner, a heat-sensitive adhesive and the printable material itself, which is usually made of PVC or PU. This material should be printed with the provided "media profiles" from HP and run through a contour cutter to get a "kiss cut" (cut which does not reach the liner itself). Immediately after, the weeding process can start, which consists of removing the excess of material which we don't want to transfer to the fabric. The cut material is then ready to be transferred to a fabric: this is usually done with an "applicator tape", which allows for the different pieces to keep its relative position, as well as to be placed on the right side for the transfer. The application tape is placed onto the fabric and the hot-press is run with the right specifications determined from each media vendor in their corresponding Data Sheet: time and temperature are the two main parameters, always keeping the right level of pressure.

Each heat transfer material has its specific fabrics where it can be transferred (polyester, cotton, nylon…). Check the corresponding Data Sheet of the different materials, to learn about these compatibilities.

Washing resistance

HP Latex certification tests include washing resistance tests according to ISO 6330:2012 and ISO 105-A02:2010.

Certified media must resist a minimum of 5 washing cycles (wash+dry) at the conditions recommended by the material manufacturer (washing temperature and type of drying).

3 Certified heat transfer materials

HP has certified several brands of heat transfer materials and profiles that are available at HP's media locator (www.printos.com/ml/#/medialocator) or directly downloadable from the HP Latex printer's front panel.

Information on how to use these materials is shown in the next tables. More updated and specific information can be obtained through the manufacturer's web page:

Table 1. Chemica materials

	CHEMICA **Clearprint**	CHEMICA **Aprint 1718**	CHEMICA **Easyprint 1702**	CHEMICA **Hotmark Print 1792**
Composition	Polyurethane	Vinyl	Vinyl	Polyurethane
Compatible with	100% cotton 100% polyester Poly/cotton blends	100% cotton 100% polyester Poly/cotton blends	100% cotton 100% polyester Poly/cotton blends	100% cotton 100% polyester Poly/cotton blends
Cutting blade	Standard	Standard	Standard	Standard
Application Tape	No need	ATT450	BY HAND or ATT450	ATT450
Pressure (in hot press)	Medium	Medium	Medium	Medium
Temperature (of hot press)	160°C / 320ºF	120°C / 248ºF	160°C / 320ºF	160°C / 320ºF
Time (in hot press)	20s	20s	20s	20s
Removal of application tape	Cold	hot	hot	hot
Washing	40°C / 104ºF	40°C / 104ºF	60°C / 140ºF	60°C / 140ºF
Printers	300 & 500	300 & 500	300 & 500	300

Table 2. Siser materials

	SIER **Printable N1**	SIER **ColorPrint™ PU Gloss**	SIER **ColorPrint™ Classic**
Composition	Polyurethane film	Polyurethane film	PVC film
Compatible with	cotton, polyester, mixed textile	cotton, polyester, mixed textile	cotton, polyester, mixed textile
Cutting blade	45°	45°	45°
Application Tape	TTD EASY Siser	TTD EASY Siser	TTD EASY Siser
Pressure (in hot press)	3-4 bar	3-4 bar	3-4 bar
Temperature (of hot press)	165°C / 329ºF	155°C / 311ºF	150°C / 302ºF
Time (in hot press)	15 sec	15 sec	15 sec
Removal of Application Tape	hot peel	hot peel	hot peel
Washing	40°C / 104ºF	60°C / 140ºF	50°C / 122ºF
Printers	300	300	300

Table 3. Poli-Tape materials

	Poli-Tape **Ultimate Print Soft 4030 Matt**	Poli-Tape **Turbo Print 4036 Matt**
Composition	Polyurethane film	Polyurethane film
Compatible with	cotton, polyester, mixed textile	cotton, polyester, mixed textile
Cutting blade	45°	45°
Application Tape	POLI-TACK 854	POLI-TACK 854
Pressure (in hot press)	2,5-3 bar	2,0 bar
Temperature (of hot press)	160°C / 320ºF	150°C / 302ºF
Time (in hot press)	15 sec	10 sec
Removal of Application Tape	--	--
Washing	40°C / 104ºF	40°C / 122ºF
Printers	300	300

4   How to obtain a "customized clothing"
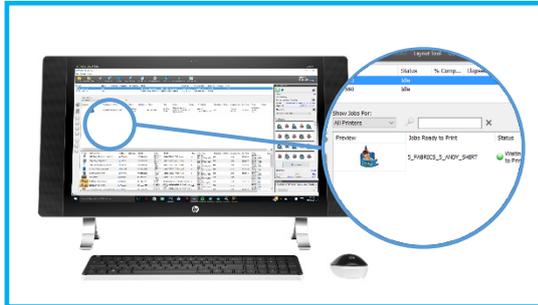
1.   Design your file with HP Signage Suite and send it to the printer... and to the contour cutter!

- Use the RIP to send the file. It has to include both the printing file and the contour cut file (to be detected when designed as a Pantone color).
- A printing file will be sent to the HP Latex Printer and a "cutting file" will be sent to the contour cutter

2.   Print the file with a heat transfer material

- Download the "media preset" for your substrate through the "online search" in the printer's front panel
- Look for any of the media on Table 1 on-line to get their printing profiles.

3.   Send the "cutting file" to the large-format contour cutter

- A "kiss cut" will cut the printed material (vinyl or polyurethane) up to its plastic liner
- A cutting force of 100 gr and a speed of 31 ips is a good starting point, especially for PU based materials.
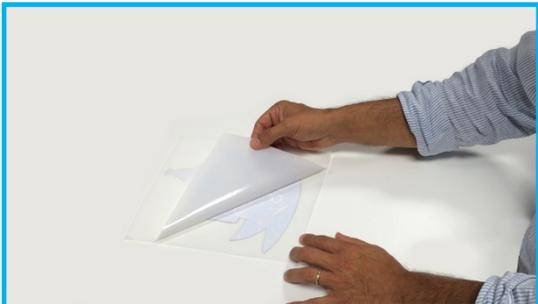
4. **Remove the unprinted material from its liner (weeding)**

- A "weeder pick tool" is very helpful for the removal of small pieces of material

5. **Apply an "application tape" to the image**

The print needs to be printed-side-up when applied to the T-shirt

6. **Remove the original "clear carrier" from the print**

- The print is now ready to be directly transferred to the T-shirt

7. **Just place this "sandwich" into the heat press**

- Every material has its specific temperature and transfer time.
- Check Table 1 to know the exact parameters for your transfer material.

8. [Apply heat and pressure to the print](#)

- Every material has its specific temperature and transfer time. Check its Data Sheet for specific info

9. [The T-shirt is ready for use](#)

- Customize your T-shirts, sweaters, tote bags, aprons and more

5 Useful links

Videos:

- Customizable clothing

HP Applications Center:

- https://www.hpapplicationscenter.com/

PrintOS Media Locator

- https://www.printos.com/ml/#/medialocator

Further information:

- http://www.hp.com/supportvideos
- http://www.youtube.com/HPSupportAdvanced