APPLICATION GUIDE
Polyurethane films:

FLEX IMN :
(UFLEX6P / UFLEX7P / UF1200 / UF1250 / UF1400)

EQUIPMENT NECESSARY

- Printer
- Plotter
- Hot press
- Flex IMN
- Textile
- Squeegee
- HEX860, HEX750 tape according to references (except for reference UF1250)
- Waxed or siliconed paper
- TEFLEX protection sheet (optional)

STORAGE

- Store in a dry place.
- Shelter from light and heat.
- Shelf life:
  1 year if stored in its original packing at a temperature between 15°C and 25°C (59°F to 77°F) and between 30% and 70% relative humidity.

CHARACTERISTICS

<table>
<thead>
<tr>
<th></th>
<th>UFLEX6P</th>
<th>UFLEX7P</th>
<th>UF1200</th>
<th>UF1250</th>
<th>UF1400</th>
</tr>
</thead>
<tbody>
<tr>
<td>FINISH</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White opaque mat</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Transparent</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>COMPATIBILITY WITH FABRIC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cotton</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Nylon</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Polyester</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lycra</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sublimated Polyester</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SIZE OF LOGOS / IMAGES</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small (&lt; 1 cm)</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Medium (1-1.5 cm)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Large (&gt;1.5 cm)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>TRANSFER TAPE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HEX860</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>HEX750</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>(tape included)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For further technical information refer to the data sheet available on the Professionals pages of our website www.hexis-graphics.com.

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1. RECOMMENDATIONS:

- To confirm the compatibility between the FLEX and the fabric refer to the chart on page 1.
- For heavy ink loads, leave to dry for at least 24 hours before cutting and application.
- It is recommended to test the resistance of the fabric to the temperatures in use in the press and for compatibility of the fabric with Flex.
- Apply on a previously washed fabric.
- For optimum durability avoid application of the FLEX over seam.

2. PRINTING AND CUTTING OF FILMS:

It is necessary to prepare the cut-out before the printing stage.

The films should preferably be stored under the same environmental conditions as at the printing-cutting station.

The blade pressure should be adjusted according to the film.

*With too high a pressure the liner may suffer scarification which could allow the adhesive to penetrate which would make the weeding process much harder.*

In all cases it is anyhow recommended to weed material right after cutting.

2.1. Introduction to cutting:

The smallest possible size to be cut depends on the conditions of the blade, the pressure, the cutting speed and on the plotter. In general an acceptable height is 10 mm (0.4 in), serif sof 1.5 mm (0.05 in), at average speed and with a blade in good condition. Smaller letters can obtained by reducing the speed.

Example on a ROLAND® SP300 printer, the maximum recommended speed is 30 cm/sec (12 in/sec). However, when the logos are fine or small, cutting at 20 cm/sec (8 in/sec) is recommended to obtain a better result.

*Special note: In all cases, carefully read the cutting machine instructions and perform a preliminary test before cutting.*

The blade must cut the polyurethane film and the adhesive surface. (PIC. 01)

A blunt, worn blade will affect the cutting quality and will require heavier pressure. It will also be more difficult to weed.

2.2. Preliminary cutting test:

To find the setting of the plotter, we recommend you carry out a preliminary test:

- Cut a square 10 cm x 10 cm (4 in x 4 in).
- Weed. (PIC. 02) (PIC. 03): remove excess material.
- Check:
  - That the cut out square remains stuck to the protector.
  - That the protector has not been cut.
  - Weeding is successful if the plotter is correctly adjusted (pressure, speed, condition of the blade).
2.3. Printing:
For references UFLEX6P / UFLEX7P / UF1200 / UF1400:

> Print the positive image.

For reference UF1250:

> Print the mirror image.

⚠️ Refer to the printer-cutter instructions.

> Allow the print to dry. For printing heavily loaded with ink, drying is recommended for at least 24 hours before cutting/application.

2.4. Cutting and weeding:

> Cut the image.
> Weed= remove excess material. (PIC. 04) (PIC. 05) (PIC. 06)

2.5. Application of the tape:
(Only for references UFLEX6P / UFLEX7P / UF1200 / UF1400).

> Keep the appropriate tape (refer to compatibility chart page 1).

> Peel the tape off its carrier. (PIC. 07)

> Position the tape and apply the printed, cut and trimmed film. (PIC. 08)
Press the tape firmly with a squeegee, concentrating on the contours (PIC. 09) without causing any creases or bubbles, in a dust-free place.

*Special note for UF1250: Reference UF1250 (transparent Flex) is used without tape. The carrier acts as the tape.*

3. APPLICATION OF GRAPHICS:

3.1. Set the parameters of the hot press: (PIC. 10)

> Pressure: strong according to the type of press.
> Adjust the press temperature.

<table>
<thead>
<tr>
<th>Flex</th>
<th>Fabric</th>
<th>Indicative press temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>UFlex6P</td>
<td>Any compatible fabric (refer to chart page 1)</td>
<td>160°C (320°F)</td>
</tr>
<tr>
<td>UFlex7P</td>
<td>Any compatible fabric (refer to chart page 1)</td>
<td>160°C (320°F)</td>
</tr>
<tr>
<td>UF1200</td>
<td>Any compatible fabric (refer to chart page 1)</td>
<td>170°C (338°F)</td>
</tr>
<tr>
<td>UF1250</td>
<td>Any compatible fabric (refer to chart page 1)</td>
<td>170°C (338°F)</td>
</tr>
<tr>
<td>UF1400</td>
<td>Any compatible fabric (refer to chart page 1)</td>
<td>170°C (338°F)</td>
</tr>
</tbody>
</table>

*Chart 1: Indicative temperature according to the fabric and the FLEX used.*

*Special note: In cases always carry out a preliminary test so as to adjust the pressing conditions before you carry out any long series.*

3.2. Preheat the fabric:

Purpose: remove humidity from the fabric.

> Position the fabric. (PIC. 11)

> Press for preheat the fabric. (PIC. 12)

*Conditions:*

> Temperature: Refer to Chart 1 in paragraph 3.1.
> Time: 5 seconds.
3.3. Take the “taped” image and remove the liner:

(Only for references UFLEX6P / UFLEX7P / UF1200 / UF1400).

- Turn the compound over so that the liner of the Flex is on top. Lay on a flat surface. (PIC. 13)

- Carefully remove liner form the Flex by pulling at an angle of 180°. (PIC. 14)
- Check to ensure the image remains stuck to the tape.

3.4. Positioning the image:

Positioning the picture. (PIC. 15)

3.5. Press:

(PIC. 16)

**Conditions:**

<table>
<thead>
<tr>
<th>Flex</th>
<th>Fabric</th>
<th>Indicative press temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>UFLEX6P</td>
<td>Any compatible fabric (refer to chart page 1)</td>
<td>160°C (320°F) during 20 seconds</td>
</tr>
<tr>
<td>UFLEX7P</td>
<td>Any compatible fabric (refer to chart page 1)</td>
<td>160°C (320°F) during 15 seconds</td>
</tr>
<tr>
<td>UF1200</td>
<td>Any compatible fabric (refer to chart page 1)</td>
<td>170°C (338°F) during 20 seconds</td>
</tr>
<tr>
<td>UF1250</td>
<td>Any compatible fabric (refer to chart page 1)</td>
<td>170°C (338°F) during 20 seconds</td>
</tr>
<tr>
<td>UF1400</td>
<td>Any compatible fabric (refer to chart page 1)</td>
<td>170°C (338°F) during 20 seconds</td>
</tr>
</tbody>
</table>

Chart 2: Press temperature and duration.
3.6. Remove the tape:

PIC. 17

> Depending on the combination fabric / Flex it may be easier to remove the tape while the Flex is hot, warm or cold. This will depend on the individual case. In order to get some guidance refer to the chart below. Chart 3:

<table>
<thead>
<tr>
<th>Flex</th>
<th>Fabric</th>
<th>Remove the tape when the Flex is...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uflex6P</td>
<td>Any compatible fabric (refer to chart page 1)</td>
<td>Warm</td>
</tr>
<tr>
<td>Uflex7P</td>
<td>Any compatible fabric (refer to chart page 1)</td>
<td>Warm</td>
</tr>
<tr>
<td>UF1200</td>
<td>Any compatible fabric (refer to chart page 1)</td>
<td>Warm</td>
</tr>
<tr>
<td>UF1250</td>
<td>Any compatible fabric (refer to chart page 1)</td>
<td>Cold</td>
</tr>
<tr>
<td>UF1400</td>
<td>Any compatible fabric (refer to chart page 1)</td>
<td>Warm</td>
</tr>
</tbody>
</table>

Chart 3: Condition of the removal of the tape.

PIC. 18

> Result: Image with satin appearance (single passage).

PIC. 19

3.7. If you have another graphic, position it and protect the first transfer:

PIC. 19

> The choice of protector for the first transfer may influence its final appearance (refer to paragraph 4).
4. **FINISH:**
For effect and an optimal adhesion:

- Place either the TEFLEX protection sheet or waxed or silicon paper on the surface of the graphic.  
  *(PIC. 20)*

- Various results and appearances can be obtained according to the protection sheet used during the second hot press OPERATION.

  
  **Silicone paper => silicone surface on image side.**

- Press the entire assembly.

  **Conditions:**
  - Temperature: Refer to the chart 1 in paragraph 3.1
  - Time: 10 seconds.

The effect of this second passage is to make the Flex film enter the fabric fibres and improve its resistance.

**4.1. Remove the liner while warm or cold:**

- Temperature of the textile between 30°C and 60°C (86°F and 140°F).

5. **CARE OF THE FLEX ON TEXTILES:**

- Caution: Allow 24 hours before washing. For better ink durability, it is preferable to wait for one week before the first wash.

- Home machine washing: 40°C (104°F) maximum.

- Use laundry products without bleach. The use of softeners is not recommended as it may result in an alteration of the adhesion of the Flex on the fabric.

- Tumble dryer not recommended.

- We recommend you wash and iron the garment inside out.