RIBBONS FOR PERSONALIZING AND PROTECTING ALL YOUR CARDS

MUCH MORE THAN CARD PRINTERS

Signature pads

Software

Card printers

Accessories

Services

THE TECHNOLOGIES
CLOSE UP

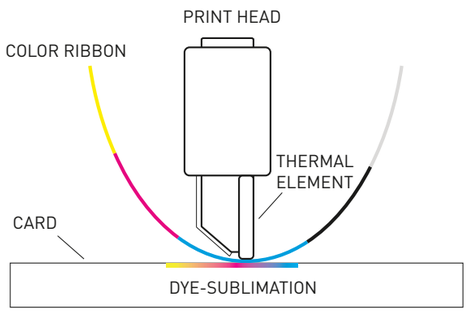
Various printing and lamination technologies are employed to personalize plastic cards. The Evolis High Trust® ribbon range has been developed to ensure each technology delivers the very best results.

CONSUMABLES TO SUIT EACH
CARD PERSONALIZATION TECHNOLOGY

COLOR DYE-SUBLIMATION AND MONOCHROME THERMAL TRANSFER

This process, also known as direct-to-card printing, uses ribbons comprising different panels which, when heated by a print head, transfer the print to the card.

1. The panels contain the 3 primary colors (yellow, magenta and cyan) and are applied in succession by dye-sublimation. The technology produces a resolution of 300 dpi and guarantees a professional finish.
2. Next, the black panel prints text and barcodes by thermal transfer, ensuring perfect readability.
3. Finally, a protective varnish overlay is applied to enhance the quality of the image and protect the cards for up to 3 years of service.



Card printed with the yellow panel

Card printed with the magenta panel

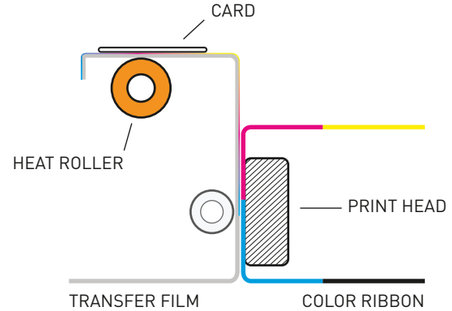
Card printed with the cyan panel

Card printed with the black panel then protected by the varnish overlay

RETRANSFER (OR "REVERSE TRANSFER")

1. Images and text are printed by a 4-panel color ribbon (yellow, magenta, cyan and black) on to a clear film (called the retransfer ribbon).
2. The clear film is then thermally transferred on to the card, covering the entire surface for a perfect edge-to-edge printing result.

The technology enables the personalization of cards of different materials, as well as cards whose surfaces are not entirely smooth, such as smart cards.



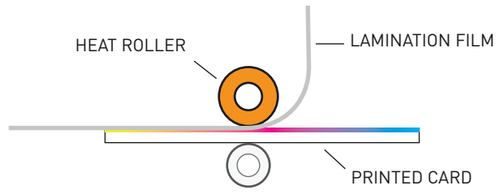
CARD LAMINATION

Lamination is the process of applying a film (a patch or varnish overlay) onto the card to protect the print from wear and UV rays as well from attempted forgery.

Rollers inside the laminators heat to a very high temperature and apply the laminate to the plastic card.

The technology is used for cards:

- with or without encoding options (smart cards, magnetic stripes, barcodes)
- that must last for more than 3 years
- that require enhanced security.



EVOLIS HIGH TRUST® FOR CHOICE AND QUALITY CARD PERSONALIZATION

A HALLMARK OF TRUST

Evolis has developed the High Trust® line to satisfy card printing's most demanding requirements.

- **Guaranteed excellent printing quality:** All Evolis High Trust® consumables are tested and approved by Evolis' R&D and Quality Control departments.
- **Affordable card cost:** Evolis printing ribbons are among the best value for money on the market.
- **Maximized printer longevity:** The printers' settings are precision-adjusted to the ribbons' ink formula for optimal card printing quality and speed. Using Evolis High Trust® consumables extends the life of Evolis systems' print heads.

RIBBONS DESIGNED WITH YOU IN MIND

Evolis High Trust® ribbons provide the following benefits:

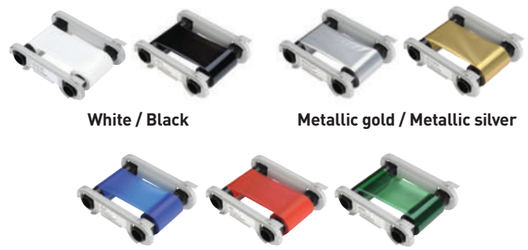
- **Wide choice:** monochrome and color ribbons with integrated security features, patch, overlay with or without hologram
- **High capacity,** to give Evolis printers greater autonomy
- **Simple set-up and operation features:** the latest generation of ribbons can be installed in a snap and the printer automatically senses the ribbon.

A RANGE OF MONOCHROME RIBBONS FOR LOWER ISSUANCE COSTS

STANDARD CONTINUOUS RIBBONS

Because it uses just one color, monochrome printing is very cost-competitive for personalizing pre-printed cards or issuing single-color cards.

Evolis provides a variety of standard continuous ribbons:

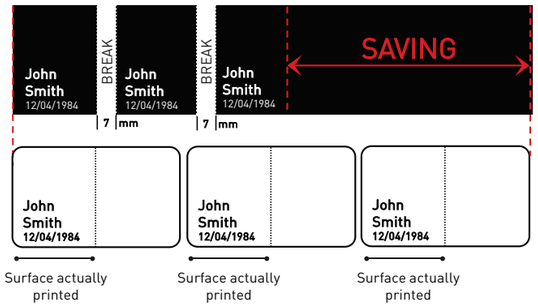


The Evolis monochrome ribbon line also includes special-task ribbons:

- **White signature** for signing or handwriting on the card.
- **Scratch-off** ink to hide a code or the cardholder's ID number.
- **BlackFLEX** ribbon containing an ink formula for personalizing in black certain materials such as paper or ABS plastic.

The ribbon-saving feature

With this feature, the surface used on the ribbon corresponds to the real printed surface on the card, plus a 7mm jump. Less monochrome ribbon is used and the card volume one ribbon can print is significantly increased.



RIBBONS WITH PANELS

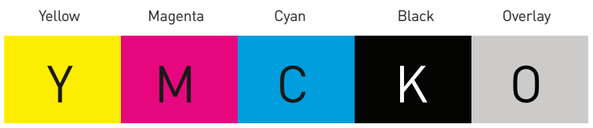
- **KO:** a black (K) panel prints black texts or barcodes and a clear overlay (O) panel applied a protective varnish that makes monochrome personalization last longer.
- **SO-KO:** a silver (S) panel and a black (K) panel both followed by a protective overlay (O) panel. This ribbon is perfect for banking applications where pre-printed cards need to be personalized.

Evolis High Trust® color ribbons come in a variety of color combinations and are formulated to deliver eye-catching images and crisp text. Capable of reproducing up to 16 million colors, clients agree Evolis ribbons produce first-class quality images.

COLOR RIBBONS FOR DAZZLING RESULTS

YMCKO ribbon

The YMCKO ribbon has 5 panels. The last one (O) is a varnish overlay that protects the card's printed elements. Ribbons can be used to print all designs, on single or dual-sided cards. The roll can deliver between 100 and 500 prints, depending on the printer.

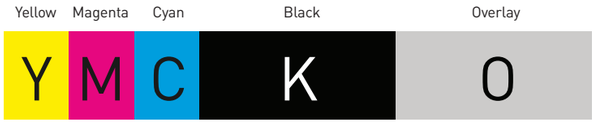


Whole panels (length: 98 mm)

1/2 and 1/3 panel ribbons

These short panel ribbons offer an even greater cost-saving printing solution for your color ID cards with black text. The benefits:

- A cost-per-card saving of around 40 % for a half-panel YMCKO ribbon compared to a color YMCKO ribbon.
- Larger print volume than a YMCKO ribbon, which translates into fewer ribbon reloads (400 printed sides for a half-panel YMCKO ribbon versus 200 for a YMCKO ribbon).



1/2 panels for the colors Y, M and C (49 mm)

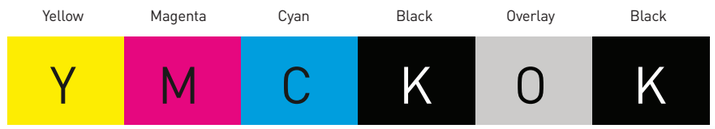
Whole panels (length: 98 mm)

Maximum width of the color-printed area: 35 mm

YMCKO-K ribbon

Comprising 6 panels, this ribbon is ideal for double-sided personalization that produces a color image of photograph-quality resolution on the front of the card and black text or a barcode on the back.

Evolis High Trust® YMCKO-K ribbon promises great cost-per-card value.



Whole panels (length: 98 mm)

The back is personalized with the K panel

Color ribbons for non PVC cards

Special ribbons were developed to allow printing on various card substrates, other than PVC or on cards with uneven surface. These Evolis High Trust® ribbons are available for both printing technologies:

- Direct-to-card printing (color dye-sublimation, monochrome thermal transfer): one of the panels coats the card with a special layer on to which the Y, M, C and K panels can then be applied.
- Retransfer printing: once the Y, M, C, K panels have been applied on the clear film, a 5th panel with a special coating covers the print to enable its perfect transfer on the card.

Cards made out of polycarbonate are often the preferred choice for security or governmental applications. These ribbons make the issuance costs for these applications extremely attractive.

PROTECTION GUARANTEED

Official documents (national ID cards, voter ID cards, driver's licenses) and certain access badges require very high levels of security.

Evolis has therefore designed ribbons that specifically respond to this growing need and that give ID cards and their data maximum protection.

SECURITY VARNISHES AND LAMINATES TO PROTECT YOUR CARDS

LAMINATION FILMS

The wide range of Evolis laminates fall into 2 categories:

- **Patches:** These are PET films that protect the cards from UV rays and other causes of premature wear for 3 to 10 years* depending on the thickness of the film selected. Recommended for cards requiring enhanced security and longevity, patches can be applied to just one or to both sides of the card.
- **Varnishes:** These are lighter than patches and are applied to the entire surface of the card. They afford 2 to 3 years* protection and are recommended for cards with medium level security needs.

Both types of film can be clear or can incorporate a hologram (personalized or standard) to provide an additional layer of defense against fraud.

UV FILM

UV (ultra violet) ink is used to print details (text, photos or logos) that are invisible to the human eye in normal daylight but that become visible under UV light. The Evolis Avansia retransfer printer uses UV printing to offer an additional layer of card security and makes any attempt at forgery easy to detect.

Several designs can be used in combination to fulfill varying needs:

Design for a smart card

Design for a card with a magnetic stripe

UV image UV security text

* Under specific conditions

HOLOGRAPHIC FILMS

Very high definition, 3D holographic images give identity cards a high level of security. The hologram constitutes a genuine defense mechanism for protecting card data:

- A hologram is extremely difficult to reproduce and cannot be generated by standard printing technologies nor duplicated by scanners or color photocopiers.
- Any attempt at forgery alters the hologram and abnormalities can be easily seen and detected.

Holographic films can be applied either by a print head (by printing directly on to the card or by the retransfer technology) or using a lamination module.

There are 2 types of holographic films:

- **A holographic varnish** containing either continuous design or registered holographic images. A registered hologram is systematically placed in the same location on each card whereas a continuous image is applied randomly to the card.
- **A hologram patch** containing either identical or alternate holographic images depending on whether single or dual-sided printing is required.

Evolis supplies holographic ribbons for direct-to-card or retransfer printing systems.

Tailor-made hologram solutions

In addition to the standard holographic films, Evolis can also create totally personalized holograms to take card security to a higher level.

Hologram customization is carried out as part of a made-to-order request, in line with your design specifications. The film is created exclusively for your organization and cannot be used by anyone else.

RIBBON/PRINTER COMPATIBILITY

DIRECT-TO-CARD MONOCHROME RIBBONS

PRODUCT CODE	DESCRIPTION	PRINTS / ROLL	BADGY200	ZENIUS	PRIMACY	QUANTUM	PRIMACY LAMINATION
R2F010NAA	KO	600		•	•		•
R3012	KO	500				•	
R4F027NAA	SO-KO	250			•		•
CBGRU500K	BLACK	500	•				
RCT023NAA	BLACK	2000		•	•		•
R2131	BLACK	3000				•	
RCT012NAA	BLUE	1000		•	•		•
R2012	BLUE	1000				•	
RCT013NAA	RED	1000		•	•		•
R2013	RED	1000				•	
RCT014NAA	GREEN	1000		•	•		•
R2014	GREEN	1000				•	
RCT015NAA	WHITE	1000		•	•		•
R2015	WHITE	1000				•	
RCT016NAA	METALLIC GOLD	1000		•	•		•
R2016	METALLIC GOLD	1000				•	
RCT017NAA	METALLIC SILVER	1000		•	•		•
R2017	METALLIC SILVER	1000				•	
RCT018NAA	SCRATCH OFF	1000		•	•		•
R2018	SCRATCH OFF	1000				•	
RCT019NAA	BLACKFLEX	1000		•	•		•
R2029	BLACKFLEX	1000				•	
RCT021NAA	WHITE SIGNATURE	1000		•	•		•
R2030	WHITE SIGNATURE	1000				•	

XXX: this code may vary depending on your region

DIRECT-TO-CARD COLOR RIBBONS

PRODUCT CODE	DESCRIPTION	PRINTS / ROLL	BADGY200	ZENIUS	PRIMACY	QUANTUM	PRIMACY LAMINATION
CBGR0100C	YMCKO	100	•				
R5F008XXX	YMCKO	300			•		•
R5F002XXX	YMCKO	200		•	•		•
R3511	YMCKO	500				•	
R5H004NAA	1/2 YMCKO	400		•	•		•
R3013	1/2 YMCKO	400				•	
R7H006NAA	1/2 YMCKO-KO	250			•		•
R6F003XXX	YMCKO-K	200			•		•
R3514	YMCKO-K	500				•	

DIRECT-TO-CARD SECURITY RIBBONS

PRODUCT CODE	DESCRIPTION	PRINTS / ROLL	BADGY200	ZENIUS	PRIMACY	QUANTUM	PRIMACY LAMINATION
RVA022NAA	HOLOGRAM VARNISH - GENUINE GLOBES	400		•	•		•
R4002	HOLOGRAM VARNISH - GENUINE GLOBES	350				•	
LVA038NAA	CLEAR CONTINUOUS VARNISH	1200					•
LVR037NAA	GENERIC HOLO REGISTRED VARNISH	1200					•
LPS028NAA	CLEAR PATCH 1 MIL	600					•
LPS032NAA	CLEAR PATCH 0.5 MIL	600					•
LPS029NAA	GENERIC HOLO PATCH 1 MIL	600					•
LPS033NAA	GENERIC HOLO PATCH 0.6 MIL	600					•
LPS030NAA	CLEAR SMART CUT PATCH 1 MIL	600					•
LPS034NAA	CLEAR SMART CUT PATCH 0.5 MIL	600					•
LPA049NAA	ALTERNATE CLEAR PATCH 1.0 MIL (FULL / MAG CUT)*	600					•
LPA047NAA	ALTERNATE CLEAR PATCH 1.0 MIL (SMART CUT / FULL)*	600					•
LPA048NAA	ALTERNATE CLEAR PATCH 1.0 MIL (SMART CUT / MAG CUT)*	600					•

RETRANSFER FILMS & RIBBONS

PRODUCT CODE	DESCRIPTION	PRINTS / ROLL	AVANSIA
RTCL009NAA	CLEAR	500	•
RT4F010XXX	YMCK	500	•
RT5F011XXX	YMCK-K	400	•
RT5F012NAA	YMCKI (for cards with chip, magnetic stripe and/or signature panel)	400	•
RT5F013NAA	YMCKH (for non-PVC cards)	400	•
RT5F014NAA	YMCFK (with UV)	400	•
RTVA015NAA	GENERIC HOLOGRAM FILM	400	•

* Available in Q4 2016

THE EVOLIS GROUP, WORLD LEADER

- Headquarters and production site in Angers (France)
- Installed base of more than 280,000 card printers
- Subsidiaries in Miami (United States), Singapore, Mumbai (India), and Shanghai (China)
- More than 300 employees worldwide
- 400 official distributors in 140 countries
- ISO 9001 certified company

Created in 2000, the Evolis group designs, produces, and markets a complete range of plastic card printing and customization solutions for the identification of people and property. With a presence on every continent, Evolis is now the world leader for plastic card printing solutions.

Having carried out many small to large-scale projects in various regions of the world and in highly diverse fields, the printing systems and expertise of Evolis are widely recognized by many companies and organizations.

Management System ISO 9001:2008
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