

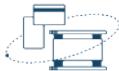
# EVOLIS

Identify what matters

## Ribbons & Films



CONSUMABLES



# Summary

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# Close Up on The Technologies

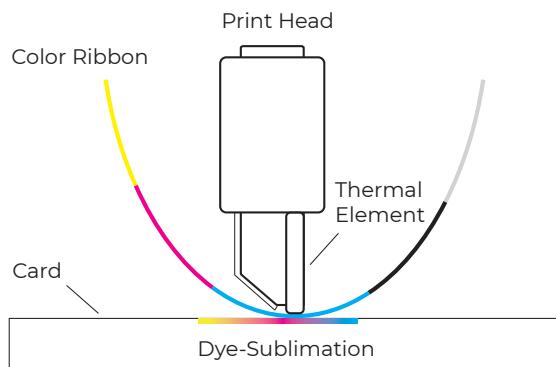
Various printing and lamination technologies are employed to personalize plastic cards. **The Evolis High Trust® ribbon range** has been developed to ensure each technology delivers the very best results.

## 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



Then with the magenta panel



Then with the cyan panel



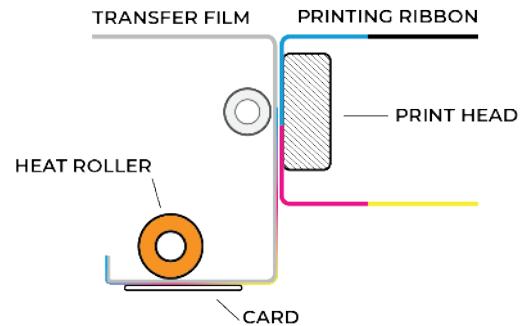
Then with the black panel and the varnish overlay



### ◎ 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.



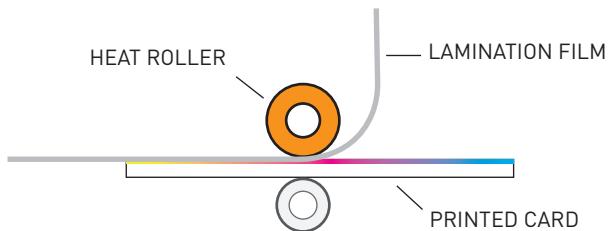
### ◎ Card Lamination

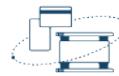
Lamination is the process of applying a film (a patch or varnish overlay) onto the card to protect the print from wear and UV rays as well from attempted forgery.

**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

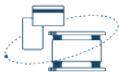
Evolis High Trust® ribbons provide the following benefits:

- **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.
- **An Easy4Pro offer:** ribbons without cassette for users keen to reduce their environmental impact.



Discover the Easy4Pro offer in video



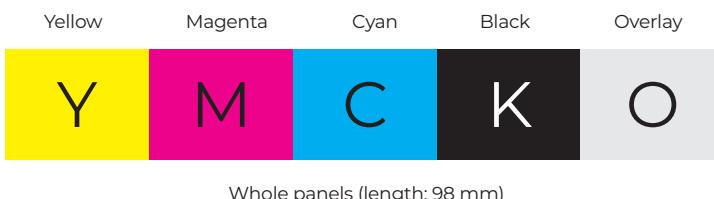


## Color Ribbons for Dazzling Results

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.

### ◎ YMCKO Ribbon

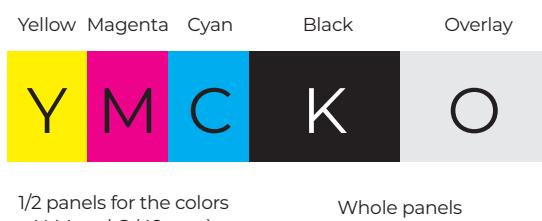
The YMCKO ribbon has 5 panels. The last one (O) is a varnish overlay that protects the card's printed elements. Ribbons can be used to print all designs, on single or dual-sided cards. The roll can deliver between 100 and 500 prints, depending on the printer.



### ◎ 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).



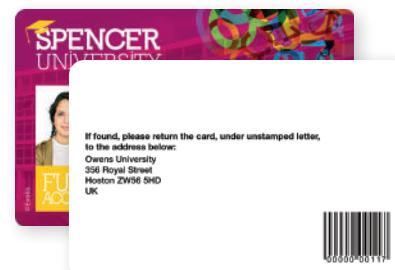


## ◎ YMCKO-K Ribbon

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

## ◎ YMCKOO Ribbon

The double layer of overlay of the YMCKOO ribbon, available on Primacy 2, brings to your printed cards an increased protection against wear and tear and thus a better lifespan to your prints, without lamination. The abrasion resistance is 3 times better with the YMCKOO ribbon compared to standard YMCKO ribbon protection. The double overlay YMCKOO ribbon also gives you the ability to use one of the overlay layer to easily apply UV effects for security purpose, and the other overlay layer to fully protect the card.



Discover the YMCKOO ribbon in video

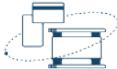


Whole panels (length: 98 mm)

With a standard YMCKO ribbon protection after 300 abrasion cycles

With a double protection overlay after 300 abrasion cycles



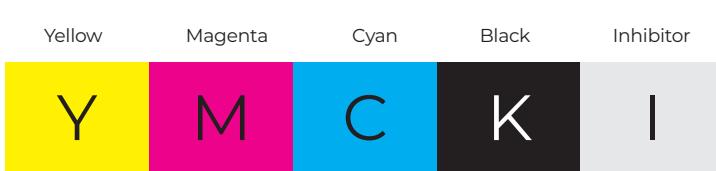


## RIBBONS & FILMS

### Color Ribbons for Retransfer Printing

Evolis offers a complete range of color ribbons adapted to retransfer technology, to be used in conjunction with the transparent retransfer film.

- **YMCK:** composed of 4 panels for color printing in photographic resolution.
- **YMCK-K:** composed of 5 panels, this ribbon is used for the personalization of double-sided cards including a color print on the front and a black print of texts or barcodes on the back.
- **YMCKI and YMCK-KI:** these ribbons with Inhibitor panel (I) prevent printing on specific parts of the card such as magnetic strips, chips and signature panels. The areas of the card not to be printed are specified in the printer driver. The YMCK-KI ribbon represents an advantageous cost per card when color printing is needed on the front and personalization with black elements on the back.



Whole panels (length: 98 mm)

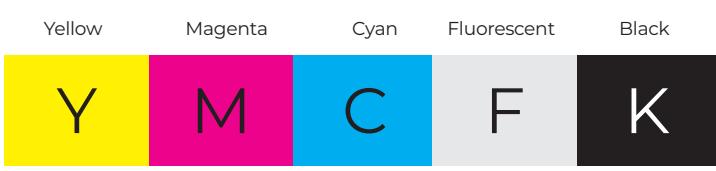


Whole panels (length: 98 mm)



Back of bank card with unprinted areas

- **YMCFK:** this ribbon with UV ink (ultraviolet) on the F panel (Fluorescent) is used to print elements (text, photos or logos) visible only under UV light. A print with the YMCFK ribbon requires 2 sets of clear retransfer film panels.

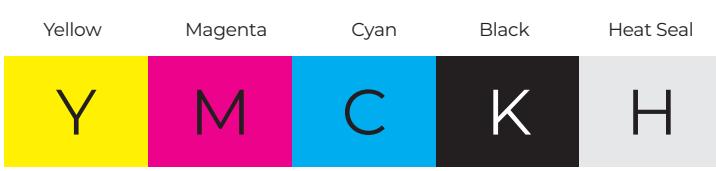


Whole panels (length: 98 mm)



UV Image  
UV security text

- **YMCKH:** Heat seal panel (H) is a special coating that is applied after Y, M, C, K panels to enable good print transfer on cards made of materials other than PVC (Polycarbonate (PC), PET-G and ABS) or cards with irregular surface.



Whole panels (length: 98 mm)



## A Range of Monochrome Ribbons for Lower Issuance Costs

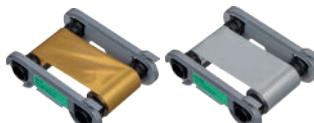
### ◎ Standard Continuous Monochrome Ribbons

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:



White / Black



Metallic gold / Metallic silver



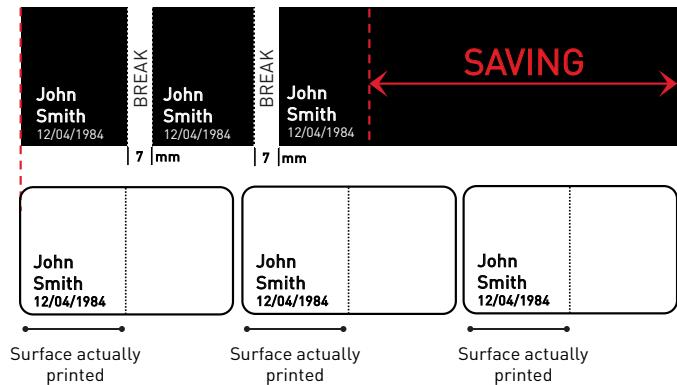
Blue / Red / Green

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.

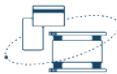
### The ribbon-saving feature

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.



### ◎ Monochrome Ribbons With Panel

- **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.



## RIBBONS & FILMS



# Security Ribbons to Protect Your Cards

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 Elements Visible Under UV Lamp

UV (Ultra Violet) ink is used to print elements (text, photos or logos) that are invisible to the naked eye and become visible under UV light. UV printing is therefore an additional level of security that makes any attempt at falsification easily detectable.

Several options with the Evolis ribbon range:

- **YMCKO ribbon with lamination:** the YMCK panels are used to print and personalize the card, the UV effect is applied with the O panel, and the print is protected with a lamination film.
- **YMCKOO ribbon only (without lamination):** available on Primacy 2, this ribbon allows to use one overlay layer to apply the UV effect and the other to protect the card.

- **YMCFK ribbon:** to use with our Avansia retransfer printer, the F (Fluorescent) panel prints elements with UV ink and adds a level of security at a lower cost.



Discover the  
YMCKOO ribbon  
in video



## ◎ 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.

\*Under specific conditions

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



Design for a smart card



Design for a card with a magnetic stripe

## ◎ 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:

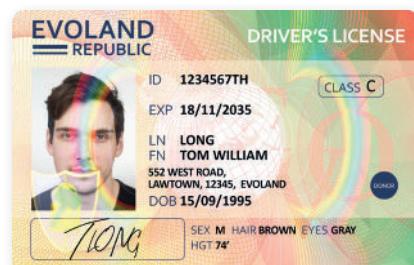
- **A holographic varnish** containing either continuous design or registered holographic images. A registered hologram is systematically placed in the same location on each card whereas a continuous image is applied randomly to the card.
- **A hologram patch** containing either identical or alternate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

Product code	Description	Prints / Roll	Badgy200	Zenius	Primacy / Primacy Lamination	Primacy 2	Quantum 2
CBGR0100C	 YMCKO	100					
R5F008xxx	 YMCKO	300					
R5F002xxx	 YMCKO	200					
R5F202xxxx	 YMCKO	200					
R5F208xxxx	 YMCKO	300					
N5F208xxxx	 YMCKO EASY4PRO	300					
R3511	 YMCKO	500					
R5H004xxx	 1/2 YMCKO	400					
R5H204xxxx	 1/2 YMCKO	400					
N5H204xxxx	 1/2 YMCKO EASY4PRO	400					
R3013	 1/2 YMCKO	400					
R6F003xxx	 YMCKO-K	200					
R6F203xxxx	 YMCKO-K	200					
N6F203xxxx	 YMCKO-K EASY4PRO	200					
R3514	 YMCKO-K	500					
R7H006NAA	 1/2 YMCKO-KO	250					
R7H206NAAA	 1/2 YMCKO-KO	250					
N7H206NAAA	 1/2 YMCKO-KO EASY4PRO	250					
R6F207NAAA	 YMCKOO	250					

xxx : this code may vary depending on your region

## DIRECT-TO-CARD MONOCHROME RIBBONS

Product Code	Description	Prints / Roll	Badgy200	Zenius	Primacy / Primacy Lamination	Primacy 2	Quantum 2
R2F010NAA	KO	600		●	●		
R2F210NAAA	KO	600				●	
N2F210NAAA	KO EASY4PRO	600				●	
R3012	KO	500					●
R4F027NAA	SO-KO	250			●		
R4F227NAAA	SO-KO	250				●	
CBGR0500K	Black	500	●				
RCT023NAA	Black	2000		●	●		
RCT223NAAA	Black	2000				●	
NCT223NAAA	Black EASY4PRO	2000				●	
R2131	Black	3000					●
RCT012NAA	Blue	1000	●	●			
RCT212NAAA	Blue	1000				●	
R2012	Blue	1000					●
RCT013NAA	Red	1000	●	●			
RCT213NAAA	Red	1000				●	
R2013	Red	1000					●
RCT014NAA	Green	1000	●	●			
RCT214NAAA	Green	1000				●	
R2014	Green	1000					●
RCT015NAA	White	1000	●	●			
RCT215NAAA	White	1000				●	
NCT215NAAA	White EASY4PRO	1000				●	
R2015	White	1000					●
RCT016NAA	Metallic gold	1000	●	●			
RCT216NAAA	Metallic gold	1000				●	
R2016	Metallic gold	1000					●
RCT017NAA	Metallic silver	1000	●	●			
RCT217NAAA	Metallic silver	1000				●	
R2017	Metallic silver	1000					●

## DIRECT-TO-CARD MONOCHROME RIBBONS

Product Code	Description	Prints / Roll	Badgy200	Zenius	Primacy / Primacy Lamination	Primacy 2	Quantum 2
RCT018NAA	 Scratch off	1000					
RCT218NAAA	 Scratch off	1000					
R2018	 Scratch off	1000					
CBGR0500F	 Blackflex	500					
RCT019NAA	 Blackflex	1000					
RCT219NAAA	 Blackflex	1000					
R2029	 Blackflex	1000					
RCT021NAA	 White signature	1000					
RCT221NAAA	 White signature	1000					
R2030	 White signature	1000					

## RETRANSFER FILMS & RIBBONS

Product Code	Description	Prints / Roll	Avansia	Agilia
RTCL009NAA	 Clear	500		
RTCL100NAAA	 Clear	1200		
RT4F010xxx	 YMCK	500		
RT4F101xxxx	 YMCK	600		
RT5F011xxx	 YMCK-K	400		
RT5F102xxxx	 YMCK-K	600		
RT5F012NAA	 YMCKI (for cards with chip, magnetic stripe and/or signature panel)	400		
RT5F103NAAA	 YMCKI (for cards with magnetic stripe and/or signature panel)	600		
RT6F105NAAA	 YMCK-KI (for cards with magnetic stripe and/or signature panel)	400		
RT5F013NAA	 YMCKH (for non-PVC cards)	400		
RT5F014NAA	 YMCFK (with UV)	400		

xxx : this code may vary depending on your region

## SECURITY RIBBONS

Product Code	Description	Prints / Roll	Zenius / Primacy	Primacy 2	Quantum 2	CLM for Primacy / Primacy 2	CLM for Primacy Primacy 2	CLM for Avansia	CLM for Agilia Lamination
RVA022NAA	 Hologram varnish - Genuine globes	400	○						
RVA222NAAA	 Hologram varnish - Genuine globes	400		○					
R4002	 Hologram varnish - Genuine globes	350			○				
LVA038NAA	 Clear varnish	1200				○	○	○	○
LVA036NAA	 Continuous varnish holographic	1200				○	○	○	○
LVR037NAA	 Registered varnish holographic	1200				○	○	○	○
LPS028NAA	 Clear patch 1 mil	600				○	○		
LPS070NAA	 Clear patch 1 mil	600						○	○*
LPS032NAA	 Clear patch 0.5 mil	600				○	○	○	○
LPS029NAA	 Generic holographic patch 1 mil	600				○	○		
LPS064NAA	 Generic holographic patch 1 mil	600						○	○
LPS033NAA	 Generic holographic patch 0.6 mil	600				○	○	○	○
LPS030NAA	 Clear smart cut patch 1 mil	600				○	○		
LPS071NAA	 Clear smart cut patch 1 mil	600						○	○*
LPS034NAA	 Clear smart cut patch 0.5 mil	600				○	○	○	○
LPA049NAA	 Alternate clear patch 1 mil (Full / Magnetic cut)	600				○	○		
LPA072NAA	 Alternate clear patch 1 mil (Full / Magnetic cut)	600						○	○*
LPA047NAA	 Alternate clear patch 1 mil (Smart cut / Full)	600				○	○		
LPA073NAA	 Alternate clear patch 1 mil (Smart cut / Full)	600						○	○*
LPA048NAA	 Alternate clear patch 1 mil (Smart cut / Magnetic cut)	600				○	○		
LPA074NAA	 Alternate clear patch 1 mil (Smart cut / Magnetic cut)	600						○	○*

\*not recommended for PVC cards



## A GLOBAL PROVIDER OF IDENTIFICATION SOLUTIONS

- **Worldwide leader** in card personalization systems for decentralized issuance
- **International expertise and local support** through a network of 3000 partners in 140 countries
- A unique ability to meet specific customer requirements with a **Project department dedicated to design and construction of tailor-made solutions**
- **Evolis is ISO 9001 certified**, which reflects our comprehensive approach, both in terms of quality and continuous improvement

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