

## VERICARD IRB FILM

### INFRARED BLOCKING SOLUTION FOR TRANSPARENT PLASTIC CARDS

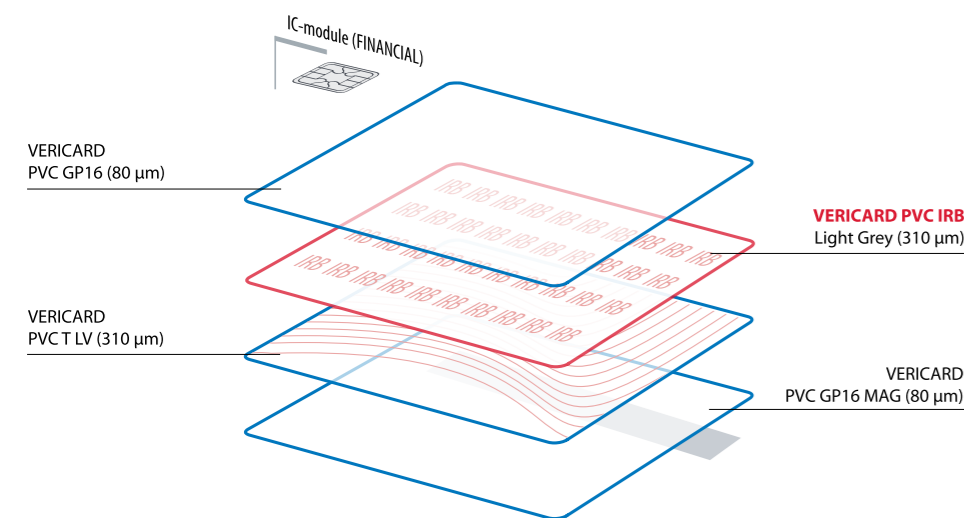
#### DESCRIPTION

- > **VERICARD IRB** is transparent rigid PVC core film with IR-blocking surface in 860-950 nm wavelength range
- > The product is fit for production of transparent banking, contactless and dual interface smart cards
- > **VERICARD IRB** performs high optical transmission in visible-light spectrum and guarantees high transparency of the card
- > Long term processability period guaranteed up to 2 years

#### APPLICATIONS

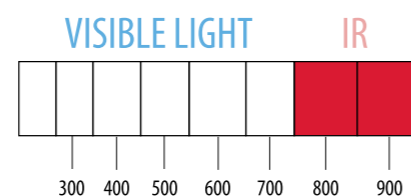
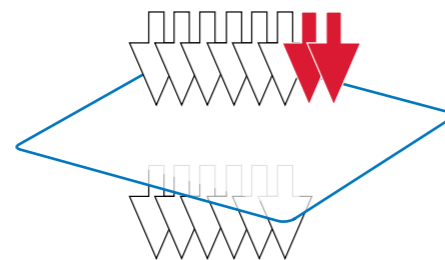
- > **VERICARD IRB** film provides new possibilities to create unique card design
- > Your new transparent card has no technical difference compared to traditional opaque card in terms of ATM readability
- > Transparent card produced with **VERICARD IRB** film is ready for ATM use and other reading devices

#### SPLIT CORE TRANSPARENT CARD STRUCTURE



## KEY CHARACTERISTICS

- > Shelf life of the **VERICARD IRB** core film is extended up to **2 years**
- > **Blocking** and optical characteristics of the material are stable during material's lifetime
- > **VERICARD IRB** film performs maximal transparency with perfect blocking effect and excellent adhesion to the overlay film
- > **VERICARD IRB** ensures full control of production costs and speed
- > Processing of **VERICARD IRB** film does not require to use harmful solvents and special ventilation systems



## OPTICAL QUALITIES

- > The IR-blocking core film **VERICARD IRB** guarantees to block not less than 93% of light transmission and enables full card functionality
- > This light transmission rate characteristics of the material fully complies with IR-blocking and transparency requirements for banking cards

## PRODUCT RANGE

- > Due to the flexibility of production capabilities, different sheet sizes (min 210 x 297 up to max 520 x 720 mm) and gauges (150 µm -400 µm) are available
- > **VERICARD IRB** meets the requirements for materials used in banking plastic cards production
- > The print side of the film is matt and has higher surface tension value compared to the back side. The material is always packed print side up

## FLEXIBLE PRODUCTION CAPABILITIES

- > The IR blocking image can be customized according to the clients specifications, e.g. to reduce coverage area for optimal cost or in accordance with design / layout requirements:
- > **100%** film area covered
- > **Partly** film area covered
- > **On request**, a transparent area of a plastic film sheet may be covered by white or metallic ink

## PHYSICAL QUALITIES

- > **COLOR:** transparent **light grey/neutral grey**  
DENSITY (DIN 53479):  
1,32±0,02 g/cm<sup>3</sup>
- > **SURFACE TENSION** (DIN EN ISO 8296 E):  
PRINT SIDE: ≥ 38 mN/m  
BACK SIDE: < 36 mN/m
- > **SURFACE ROUGHNESS Ra/ Rz** (DIN EN ISO 4287):  
PRINT SIDE: 1.2/7.0 µm  
BACK SIDE: 0.8/4.2 µm

## OPTICAL CHARACTERISTICS LIGHT GREY

IRB SINGLE LAYERED SPLIT CORE CARD SAMPLE  
USING ONE VERICARD IRB LIGHT GREY FILM  
AND ONE VERICARD CORE FILMS

OPTICAL TRANSMISSION (ORM 7810 (BATCH A))			
Wavelength	860 nm	950 nm	
Reference value	≤ 7,0	≤ 7,5	
Measured value	4,6	2,3	

BACKGROUND OPTICAL DENSITY COMPARED TO ABSOLUTELY TRANSPARENT CARD (ISO5-3)	
Optical density measured value	0,11



## IRB DOUBLE LAYERED SPLIT CORE CARD SAMPLE

USING TWO VERICARD IRB LIGHT GREY CORE FILMS

OPTICAL TRANSMISSION (ORM 7810 (BATCH A))			
Wavelength	860 nm	950 nm	
Reference value	≤ 7,0	≤ 7,5	
Measured value	0,3	0,1	

BACKGROUND OPTICAL DENSITY COMPARED TO ABSOLUTELY TRANSPARENT CARD (ISO5-3)	
Optical density measured value	0,21



## OPTICAL CHARACTERISTICS NEUTRAL GREY

IRB SINGLE LAYERED SPLIT CORE CARD SAMPLE  
USING ONE VERICARD IRB NEUTRAL GREY FILM AND ONE TRANSPARENT VERICARD CORE FILM

OPTICAL TRANSMISSION (ORM 7810 (BATCH A))			
Wavelength	860 nm	950 nm	
Reference value	≤ 7,0	≤ 7,5	
Measured value	1,7	0,6	

BACKGROUND OPTICAL DENSITY COMPARED TO ABSOLUTELY TRANSPARENT CARD (ISO5-3)	
Optical density measured value	0,24



## IRB DOUBLE LAYERED SPLIT CORE CARD SAMPLE

USING TWO VERICARD IRB NEUTRAL GREY CORE FILMS

OPTICAL TRANSMISSION (ORM 7810 (BATCH A))			
Wavelength	860 nm	950 nm	
Reference value	≤ 7,0	≤ 7,5	
Measured value	0,1	0	

BACKGROUND OPTICAL DENSITY COMPARED TO ABSOLUTELY TRANSPARENT CARD (ISO5-3)	
Optical density measured value	0,49



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INFRA RED BLOCKING SOLUTION FOR  
TRANSPARENT PLASTIC CARDS



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