

Visual Security Solutions



PRE-PRINTED SECURITY FEATURES



Unique credential construction

Pre-Printed Card Security Features

Overt

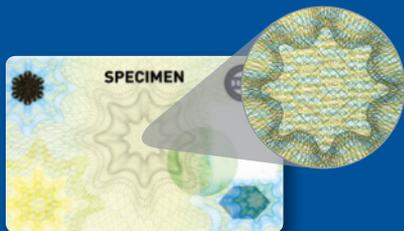
- Morphing images
- Flip images
- Fine line design
- 2D/3D Ribbon
- Pseudo Color

Covert

- Hidden text
- Micro text

Forensic

- Nano text



State-of-the-art credentials

Built-in Security

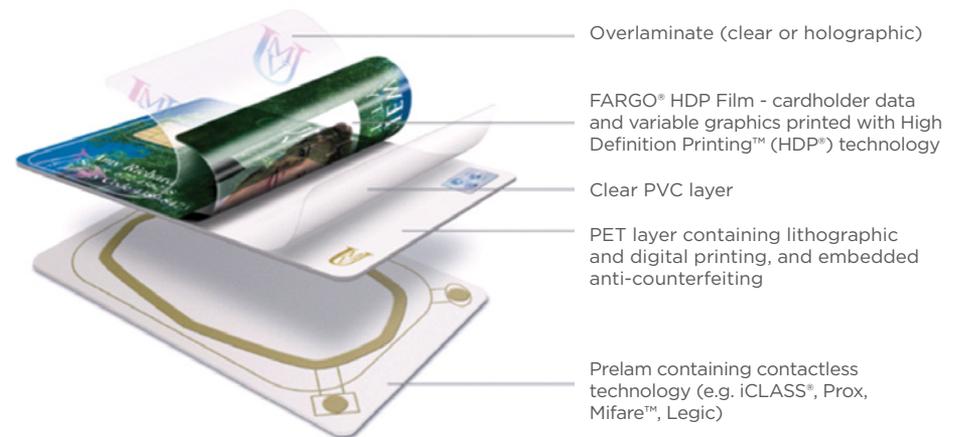
HID Global credentials feature highly differentiated, counterfeit-resistant security media and embedded hologram technology. These features enable documentation authentication with the human eye (overt features) or with specific tools (covert and forensic features).

The built-in security is categorized into four different classes:

- Class 1: Visible with bare eyes without any aids.
- Class 2: Requires use of appropriate verification tools (lens, amplifying glass, UV lamp, etc.).
- Class 3: Visible only with special equipment or in designated laboratories.
- Class 4: Only known by the card manufacturer or card issuing authority; can therefore only be verified by these parties.

Anatomy of a card

Card Layers



Anatomy of a Secure Credential — Features and Material Choice

A secure ID is a complex combination of closely interlinked elements.

HID Global provides a wide array of different card materials; options for complex visual effects and different printing technologies; techniques and colors; and secure lamination and electronic personalization.

Different levels of security are embedded within the card, depending on customer requirements and needs. HID Global supplies the right card technology for any requirement as well as a variety of card materials from PVC, ABS, PET-G, PC and others.

The combination of expertise in card design, proven manufacturing excellence and innovative technologies offers advanced, secure credentials that are relied on all over the world.



Pre-printed security protects against ID card forgery

HID Global is a leader in world-class design, sophisticated manufacturing, and innovative technologies to create high-quality and highly secure credentials.

Expanding the power of secure identity

A photo ID printed on a plain white plastic card has virtually no defense against counterfeiters. It's all too easy, using today's digital technology, to forge legitimate looking IDs.

A trusted partner

Trusted by governments and leading organizations around the world that are making the move to high security documents with the latest technology, HID Global currently participates in projects across Europe, the Middle East, Africa and Asia. HID Global also acts as a strategic advisor to customers worldwide in a wide range of complex ID management projects.

Maximum security

HID Global offers a variety of pre-printed security features including advanced overt - covert - and forensic elements. These forensic features

include hologram under overlay, high resolution offset printing and lamination of complex card structures to provide a simplified solution that meets any level of security requirements.

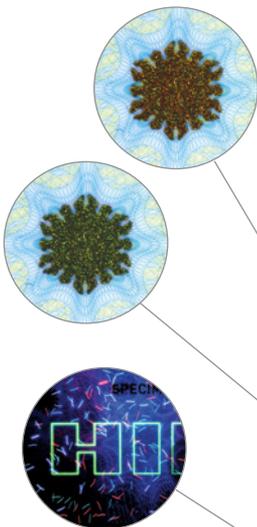
These and other pre-printed security options allow HID Global to offer the highest levels of security in the areas where they are needed most. HID Global offers:

- Active presence in the government ID market
- Secure IDs for public services and administration
- Strategic engagement in ID security projects worldwide
- Industry leadership in protecting against worldwide ID fraud with advanced technology
- Solutions that address data protection and compliance issues

Visual Security Elements (VSEs)

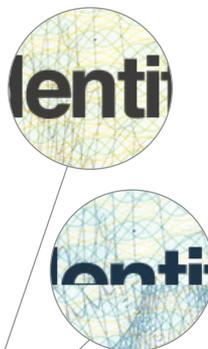
Optically (OVI*)

OVI* has a two-color shift, immediately apparent when viewed at different angles. As a high security product, OVI is instantly recognized with the naked eye and its color shift cannot be photocopied or reproduced. The supplier SICPA makes OVI* available only to audited and certified security banknotes and ID document printers.



Infrared Ink (IR)

By means of a special decoding lens camera applied to an IR-enabled camera, the printed IR color becomes invisible, whereas all logos, design structures or text remain visible on the monitor. Infrared colors are invisible under the light spectrum of 800 - 1300nm.



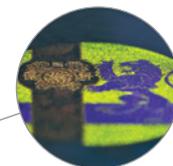
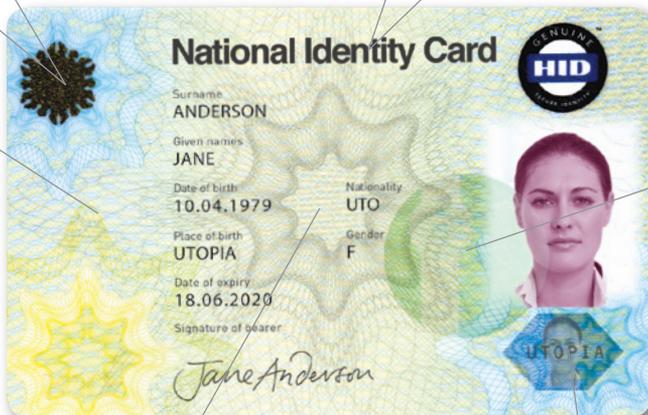
UV Ink and UV Threads

Invisible: ink appears white in daylight but emits a strong fluorescence under ultraviolet light (365 nanometers); fluorescence available in blue, green or red.

Visible: One color is visible in daylight; under UV light the same color fluoresces.

Chromotropic: One color is visible in daylight; a different color fluoresces under UV light.

Double fluorescent: a white color fluoresces blue under UV at 365 nanometers (nm) and fluoresces pink under UV at 254 nm. Several lengths and diameters of fibres are available. Main invisible colors are invisible fluorescing blue, green, red; all fibres are hydrophilic treated.



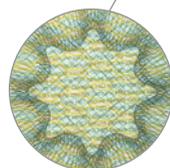
Embedded Hologram

The integration of an OVD-Patch offers the highest security against fraud and manipulation.

An OVD-Patch is laminated (embedded) between layers of overlay and is therefore protected; any attack will destroy the card surface.

Rainbow Print, Guilloche, Fine Line and Microprint

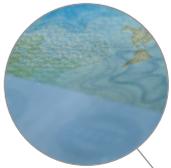
Anti-photographic background tints that provide protection against photographic separation using color filters. This security feature thwarts the majority of high volume counterfeiters who rely on photographic reproduction techniques. These tints are merged into each other (twice separated on the card), producing a subtle rainbow of color change across the document that is extremely difficult to reproduce. Color copiers and scanners may also be confused by rainbow printing and thus fail to reproduce it accurately.



MLI - Multiple Laser image

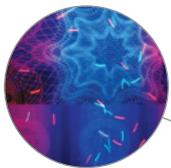
This feature is generated by laser engraving and displays changing information or images depending upon the viewing angle.

Visual Security Elements (VSEs)



Positive / Negative Embossing, Fine Line, Microtext

Through a special laminating process, a perceptible relief is produced on the surface of the card. Positive and negative line patterns show a relief including guilloches and microtext. Due to the special characteristics of the embossing, it is possible to feel the structure with the fingertip.



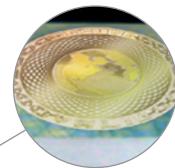
UV Ink and UV Threads

Bi-fluorescent under UV light: two different colors are visible at different wavelengths and are visible at 254nm and/or 365nm or Infrared 980nm.



Thermochromic Ink

Special ink that changes color due to a change of temperature.



Metallized Embedded Hologram

OVD-Patch is laminated (embedded) between layers of overlay.

Enhanced capabilities with HID® FARGO® printing technologies

Looking for personalization and further security for pre-printed credentials?

HID Global's FARGO ID Card Printers/ Encoders are capable of personalizing low, medium or high volumes of pre-printed cards with cardholder data and sophisticated visual security elements.

HID FARGO Direct-to-Card™ (DTC®) printing technology is commonly used to quickly and economically personalize pre-printed cards for low- to mid-level security applications.

HID FARGO High Definition Printing™ (HDP®) technology offers the best image quality and reliability available. Its reverse transfer printing process is often used for higher security applications, especially those involving technology cards.

An additional layer of defense can be applied to printed cards with HDP printers and FARGO laminators: Durable HDP Film and FARGO overlaminates can be customized with covert and overt high-security elements to help thwart counterfeiters and extend card life.



HID FARGO DTC4500e



HID FARGO HDP6600



HID FARGO HDP8500

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