secure
personal identification

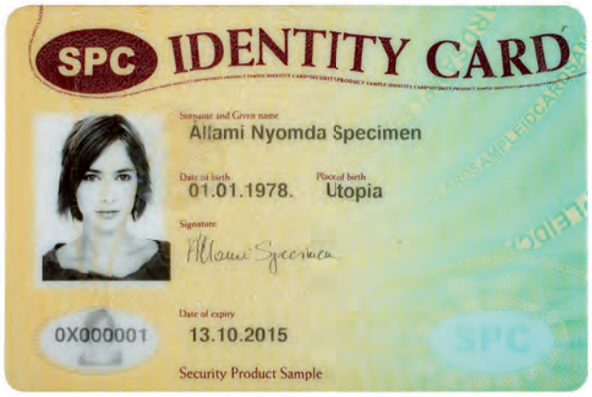
identity
form
card
mobile
payment

security since 1851

ANY Biztonsági Nyomda
SECURITY PRINTING COMPANY
FORMER STATE PRINTING COMPANY

www.any.hu

state-of-the-art ID solutions



COMPANY INTRODUCTION AND REFERENCES

The predecessor of ANY Security Printing Company PLC was founded in 1851 as the Hungarian branch of the Viennese Imperial and Royal Court and State Printing House. The company started its independent operation in 1868 producing financial, military and treasury forms as well as value articles. Following privatisation in 1993 ANY Security Printing Company PLC became one of the **leading security printing houses of the Central Eastern European region**.

Today its activities are focused on document security products and solutions, plastic card solutions, electronic document management and bulk transactional printing. The Company's main target groups include state administration, financial institutions, telecommunications, and utilities.

The Company established its **Document Security Department** in 1999, employing highly qualified researchers and experts. The Department has been focusing on such R&D topics as the application of nanotechnology in the printing industry or RFID technology in other sectors.

ANY Security Printing Company PLC designs and produces card-shaped identification documents, including identification cards, driving licences, vehicle registration cards. Examples of its successful products include the Hungarian ID card and vehicle registration card[1], the Hungarian, Icelandic and Albanian driving licence, the Hungarian and Slovakian EU health insurance cards, Pass registration card.

BIOMETRIC DOCUMENTS

ANY Security Printing Company gives high priority to the application of biometric identifiers. The Company personalises and encodes the owner's fingerprint and face into the chip of the Hungarian e-passport. In response to new EU and ICAO regulations that require a higher degree of document protection, ANY Security Printing Company PLC is preparing to introduce **new electronic card documents** – ID card and driving license, among others – containing biometric identifiers.

*produced in consortium

ID DESIGN AND PRODUCTION

ANY Security Printing Company PLC undertakes the **whole card design and manufacturing process** with safe, closed technology and a certified and ratified safety and production-technology system. Our card design and manufacturing process includes the following elements:

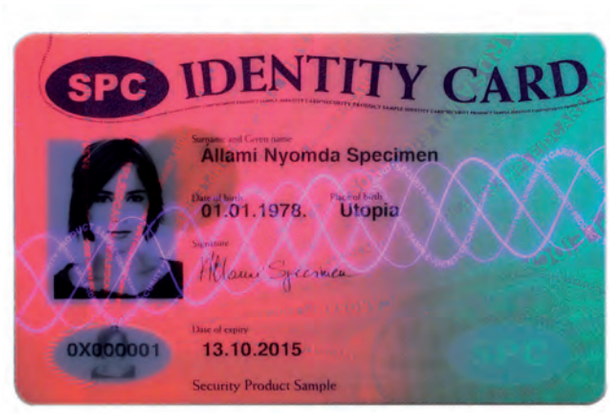
- Consultancy
- Design
- Pre-press
- Printing
- Laminating
- Cutting
- Holograming
- Chip embedding
- Personalisation
- Logistics

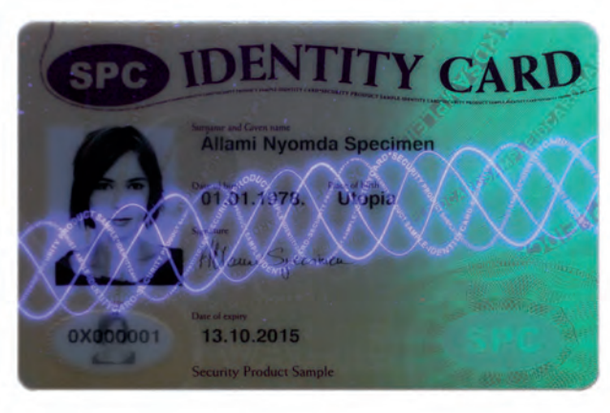
OFFERED SECURITY ELEMENTS

Our experienced and highly skilled colleagues at the Document Security Department can offer our customers consultancy and design services. Based on the requirements we can design and produce identity cards with some or all of the following overt and covert security elements:

- **Security inks**

  Our Document Security Department has developed and manufactures several types of special security ink. Our product portfolio includes fluorescent inks excited by 365 or 254 nm irradiation, bi-fluorescent inks, tri-fluorescent inks, up converting and IR luminescent ink.





- **Micro text**

  Micro letters are extremely small printed characters. When they form entire words they are called micro text and they are a very commonly applied security element. Looking with the naked eye, the micro text seems to be a continuous line. The characters contained in these lines cannot be reproduced with conventional copying methods.

- **Unique characters**

  Unique characters are not available commercially therefore counterfeit of documents using these characters becomes complicated.

- **Guilloches**

  Guilloche is a pattern of repeating lines – the layout of intersections and geometry is unique. Lines may vary by thickness and angle, but it is very difficult to copy with accuracy. It allows protection against copying and scanning.

- **Relief background prints**

  Relief background prints are images generated in such a way as to produce an aesthetic effect by creating a relief effect on the design. Special software is needed to produce the distortion of the lines.

- **Optically variable inks (OVI)**

  Colour-shifting inks generate different reflections of various wavelengths in white light, depending on the angle of incidence to the surface. An unaided eye will observe this effect as a change of colour while the viewing angle is altered. A colour copier or scanner can copy a document only at one fixed angle relative to the card's surface.

- **Metal stripe in between the layers**

  We can place a thin metallic stripe in between the cards' layers. This security feature is especially efficient when it carries a micro text.

- **Hologram**

  A hologram is a type of diffractive optical device that provides a three-dimensional effect on a flat surface. Holograms cannot be easily copied and are used for security purposes on cards. They can be applied on the card surface or in between the layers. We can also provide transparent holograms.

- **Rainbow printing**

  Rainbow printing is a process in which two or more inks are used on the same printing plate. This technology results in a special print that features continuous colour transition. Colour copiers and scanners tend to be unable to reproduce rainbow printing accurately.

- **Kinegram TM**

  The Kinegram TM is a custom-made product similar to a hologram. A kinegram image is formed by fine lines of different thickness and shape. As the angle of the light changes, the image of kinegram also changes, producing the effect of a moving picture.

- **Embossed chromium plate**

  The use of these custom-made lamination plates allows us to produce cards having unique embossed "prints" that are transparent but tactile.

- **Ghost image**

  A ghost image is a smaller version of the original photo image on an ID card, and is generally printed semi-translucent. These ghost images are made by using software that allows for the ghost image to be added to the plastic card during the printing process. This feature does not generally increase the cost of the printed card, however makes counterfeiting much more difficult.

- **Tactile effect in laser engraving**

  When this technique is applied to text or graphics, the images are slightly raised, making them tactile and easy to identify, even in low-light environments.

- **IPI (Invisible Personal Information)**

  With a special software tool, hidden images can be applied to existing pictures on the card (a photo, cardholder's date of birth etc.). The hidden image only becomes visible under a special lens and cannot be copied.

- **CLI/MLI (Changeable Laser Image – Multiple Laser Image)**

  In a highly specialised process, the CLI or MLI is integrated into the transparent overlay as a live screen. Up to 2 partial pictures are engraved into the live screen in 2 different angles. The optical equivalent of this feature is a tilting image.

CHIP TECHNOLOGIES

ANY Security Printing Company develops e-ID solutions to the Client's needs. The ID1 sized documents can use contact or contactless technologies, or a mixture of them (hybrid or dual-interface types).

Domestic and international certifications:

- Qualified bidder to Hungary
- Qualified securities producer to Hungary
- Qualified NATO supplier
- ISO 9001 quality management system certificate
- ISO 14001 environmental management system certificate
- ISO 27001 information protection certificate
- CWA 14641 High Security Printer
- AQAP 2110

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