SECURITY IN CREDIT-CARD FORMAT

Just like the former ID card, the new document also includes a host of security features providing the best possible protection against forgery and misuse. Many of these features that made the former identity card one of the most secure documents in the world have been enhanced and supplemented for the new, handy multi-functional card.

The most important security features of the new ID card are displayed and described on the following pages. These include complex security printing with multi-coloured line structures, microlettering, tactile features, fine surface embossing as well as a changeable laser image and an integrated security thread. The tried-and-tested Identigram®, a complex holographic anti-copy feature, contains the following elements: kinematic structures on top of the conventional photograph, a portrait of the holder in holographic form, the German eagle in 3D, the holder's name and the serial number of the card.

The new German ID card offers a host of possibilities that make identification both in the analogue world and the digital world of the Internet a simple and convenient procedure that is perfectly secure thanks to the versatile security features of the card.

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German National Identity Card

▶ THE NEW GERMAN NATIONAL ID CARD
SECURITY FEATURES

AS OF 31 OCTOBER 2010

Bundesministerium
des Innern

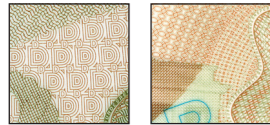BUNDESDRUCKEREI

IT'S HERE!
THE NEW GERMAN ID CARD

1 November 2010 marks both the launch of the new German ID card and the coming into effect of the German "Law on identification cards and electronic proof of identity". From now, the ID card will provide three new functions, i.e., the biometric function, the online identification function and the electronic signature function, which can be used as secure proof of identity in the digital world.

Beginning in November 2010, a digital photo and, at the applicant's request, two digital fingerprints will also be stored on the security chip integrated into the new ID card. This separately protected personal data is part of the **sovereign biometric function** and will be exclusively used by public authorities for identity checks.

Using the **online identification function** and a six-digit PIN, citizens can prove their identity for electronic applications on the Internet in a simple, secure and reliable way.

In addition to this, the new cards have been prepared to use the qualified electronic signature (QES). Digital documents can now be signed in a legally binding manner with the highly secure **signature function**.

1 + 14 Multicoloured guilloches. Guilloches are security patterns that are made up of fine, interlaced lines. In reproductions, the line structures of the original are resolved into dotted screen structures. The central motif of the guilloche lines depicts the German eagle on the front and the Brandenburg Gate on the back of the card.

2 + 15 Microlettering. The positive and negative microtext "BUNDESREPUBLIK DEUTSCHLAND" is integrated into the security background printing.

3 + 16 UV overprint. The guilloche design luminesces in various colours under UV light. A UV overprint is additionally included on the front depicting the German eagle and endless text "BUNDESREPUBLIK DEUTSCHLAND".

4 Optically variable inks. When the card is tilted, the headline "BUNDESREPUBLIK DEUTSCHLAND" changes from green to blue depending on the viewing angle.

5 Holographic portrait. The portrait becomes visible as a holographic image on the right side of the conventional photograph when viewed at a flat angle. Four eagle designs are incorporated into the secondary portrait.
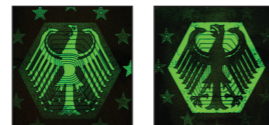
6 3D eagle. Depending on the angle at which the card is viewed, a 3D image of the German eagle appears in red on top of the six-digit card access number.

7 Kinematic structures. Kinematic structures are arranged above the conventional photograph and show a German eagle surrounded by twelve stars. When the card is tilted, the motif changes from

the eagle to a hexagonal structure and then to the letter D. In addition, the hexagons move up and down while the stars change in size.

8 Macrolettering. On the left edge of the conventional photograph a curved band of macrolettering "BUNDESREPUBLIK DEUTSCHLAND" appears in the hologram. Several parallel lines of microlettering with the same text connect with the macrolettering.

9 Contrast reversal. When the card is tilted, the contrast of the kinematic eagle motif is reversed. The bright eagle then appears dark on a bright hexagon.

10 Machine-verifiable structure. The Identigram® features a structure that enables in addition to a visual inspection an automated authenticity check of the ID card. This structure does not contain any personal or document-related data.
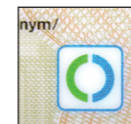
11 Colour integration technology (Innosec Fusion®). The colour photograph is securely integrated into the card material via the Innosec Fusion® personalisation system. The same technology is also used for the alphanumeric serial number (OCR-B font).
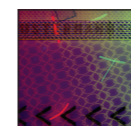
12 + 20 Laser engraving. All the personalisation data (except for the photograph and the serial number) is laser-engraved in high contrast into the inner card layers.

13 Tactile features. The expiry date and the six-digit card access number on the front of the ID card are laser-engraved and tactile.

17 Logo of the ID card. The logo is depicted on the back of the card. Beginning November 2010, this logo also identifies applications and reader devices which support the new ID card.

18 Fluorescent fibres. Transparent fluorescent fibres are integrated into the layers on the back of the card. They are randomly distributed and luminescent under UV light.
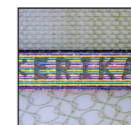
19 Surface embossing. Security-embossed microlettering and a map of Germany on the back of the card provide the document with a relief-type, tactile surface in the upper left-hand part of the card.

21 Changeable Laser Image. Depending on the viewing angle, the date of expiry or the portrait of the holder becomes visible in the Changeable Laser Image (CLI).

22 Machine-readable zone. The machine-readable zone on the back of the card includes the document type, issuing country, serial number, date of birth, expiry date, nationality along with the name and check digits in machine-readable format.

23 Personalised security thread. A horizontal, machine-verifiable security thread is embedded into the back of the card. This thread is personalised with the document number and the name of the ID card holder.

Later changes in address will be indicated on a label that can be protected by a transparent foil. The security paper used for the label is printed with a guilloche design in two colours and includes special fibres that are luminescent in various colours under UV light. In addition to the new address, the label will also contain the serial number of the ID card and the seal of the respective authority.