Electronic Residence Permit

SECURITY IN CREDIT-CARD FORMAT

The electronic residence permit comes with a host of security features that offer outstanding protection against forgery and misuse. These features are what make the electronic residence permit the most secure card of its kind the world over.

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

The electronic residence permit 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.

CONTACT

THE ELECTRONIC RESIDENCE PERMIT

Security features

January 2014

## SECURITY IN THE REAL AND DIGITAL WORLD

With the coming into effect of the "Law to adapt German law to Council Regulation (EC) No 380/2008 of 18 April 2008 amending Regulation (EC) No 1030/2002 laying down a uniform format for residence permits for third-country nationals", electronic residence permits have been issued in Germany since 1 September 2011.

In addition to its original function as a residence permit, this electronic card offers three additional functions: the official biometric function for ID checks by public authorities as well as the online ID function and the signature function for use in the digital world. Using the online ID function and a six-digit PIN, holders can prove their identity for electronic applications on the Internet in a simple, secure and reliable manner. In addition to this, the electronic residence permits 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.

Since September 2011, a digital photo and two digital fingerprints have also been stored on the security chip integrated into the electronic residence permit. This separately protected personal data is part of the official biometric function and is exclusively used by public authorities for identity checks.

Bundesministerium des Innern

BUNDES DRUCKEREI
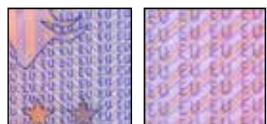
1+14 Multicoloured guilloches. Guilloches are security patterns that are made up of fine, interlaced lines. In reproductions, the line structures of the original are resolved into dotted screen structures. The EU bull and the German eagle are integrated into the guilloche design on the front of the card.

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

3+16 UV overprint. An EU-harmonised motif luminesces in various colours under UV light. This UV motif contains stars, lines and the text "EU".

4 Optically variable inks. When the card is tilted, the ICAO's "chip inside symbol" changes from green to red 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 the top of the six-digit card access number.

7 Kinematic structures. Kinematic structures are arranged above the conventional photograph and show the EU kinegram. When the card is tilted, the central rosette motif changes: The hexagons move and 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 reversal can be observed in the central motif of the EU kinegram: The bright "E" then appears dark on a bright background.

10 Machine-verifiable structure. The Identigram® features a structure that enables an automated authenticity check of the residence permit in addition to visual inspection. 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 used for the alphanumeric serial number (OCR-B font).

12+20 Laser engraving. All 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 six-digit card access number on the front of the card is laser-engraved and tactile.

17 eID logo. This logo is depicted on the back of the card. It was introduced in November 2010 to identify applications and reader devices which support the eID function.

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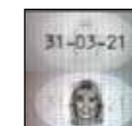
21 Changeable Laser Image. Depending on the viewing angle, the date of expiry or the portrait of the holder becomes visible in the Changeable Laser Image (CLI).

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, date of expiry, nationality of the holder along with the name and check digits in machine-readable format (OCR-B).

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 card holder.

Subsequent changes of address will be indicated on a paper label that can be protected by a transparent foil. The security paper used for this 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 also contains the serial number of the card and the seal of the respective authority.