







High Secure Identification Documents

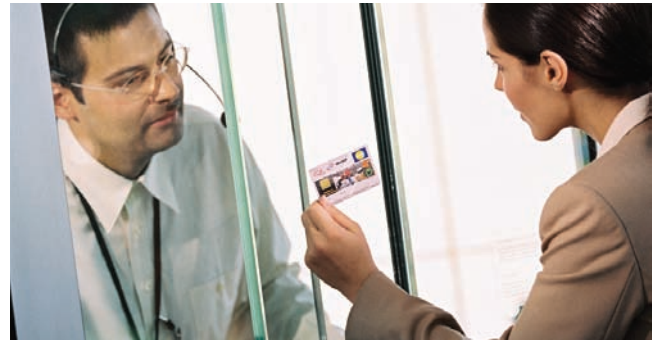
Austria Card high secure identification cards have a long lasting proven existence nationally and internationally. More and more governments and organizations are fast moving towards maximum security when it comes to crossings of individuals into countries or restricted areas. Furthermore it will be more important to have individuals carrying their respective identification in a secure, convenient and forgery-proof way.

Austria Card identification product range covers all government's and customer's needs for such documents




Fields of Application

The National Security:






-  National Identity Card
-  Residence Permit
-  Refugee Card
-  Immigrant Card
-  Seafarer's Card
-  Voter Registration Card





The Security on the Road:

-  Driving Licence
-  Digital Tachographs
-  Vehicle Registration Card




The Social Security:

-  Social Insurance Card
-  Health Card
-  Health Professional Card
-  Working Permit
-  Retirement Card

The Education Security:

-  Student Identification Card
-  School Card

The National Defence Security:

-  Military Identity Card
-  Police Identification
-  Weapon Licence

Technical Card Characteristics

Durability

It is easy to understand that identification documents have to withstand a much larger wear and tear than other cards. The usual lifespan of an identification document is designed for a minimum period of 10 years. Identification cards are dedicated for their usage under rough environmental conditions – i.e. driving licences. Although latest generation vehicles are mostly equipped with state of the art air condition systems the environmental conditions in a car during summertime or in extreme winter temperatures can easily cover a temperature range of 100 degrees Celsius and more. It is therefore necessary to adopt the chosen technology to such conditions. In particular, neither the document itself nor the personalisation data must be affected by extreme temperature and moisture changes. As well the readability of the stored data on the chip and the optical personalisation should be reliable at all times and under any condition.

Design

Austria Card can rely on a long lasting experience in the development of outstanding card designs in various fields of applications. In order to realize a design with a maximum on security with a decent set of card features, high secure personalization and restricted security features for specific customers, Austria Card is your partner of choice.

Card Material

Today, the most frequently used material for plastic card production is PVC. Thanks to its physical characteristics it combines excellent applicability for card manufacturing and card usage.

Nevertheless, the limited mechanical endurance of PVC and ABS only leaves polycarbonate as the preferred raw material considering the long validity periods of ID cards. Austria Card is one of the few card manufacturers world-wide who has mastered the complex printing, lamination and personalisation process of polycarbonate cards.

	PVC	PVC/ABS Blend	Polycarbonate	Composite
Field of Application	<ul style="list-style-type: none"> ↳ Loyalty ↳ School Card ↳ Payment Card 	<ul style="list-style-type: none"> ↳ Identification cards designed for medium life span 	<ul style="list-style-type: none"> ↳ All High Secure Identification Cards, i.e. National Identification, Driving Licence 	<ul style="list-style-type: none"> ↳ Identification cards with medium to high life span
Characteristics	<ul style="list-style-type: none"> ↳ Wide processing range ↳ Decent price ↳ Medium temperature stability ↳ Life span: up to 3 years 	<ul style="list-style-type: none"> ↳ Wide temperature range ↳ High impact strength ↳ Decent pricing ↳ Life span up to 7 years 	<ul style="list-style-type: none"> ↳ High temperature range and stability ↳ High mechanical strength ↳ Long life span: 10 years ↳ High secure laser engraving possible 	<ul style="list-style-type: none"> ↳ High temperature range ↳ High impact strength ↳ Long life span up to 10 years ↳ High secure laser engraving
Temperature Range	- 25° to + 65°C	- 40° to + 85°C	- 60° to + 135°C	- 40° to + 100°C
Life Span	3 Years	7 Years	10 Years	10 Years

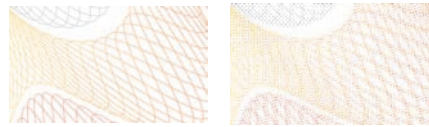
Table: The choice of raw materials for card production

① Guillochen



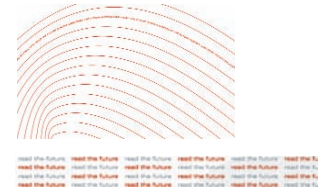
Guilloches are printed security lines - the layout of the intersections and geometry is unique. Copying is inhibited by the layout arrangements of fine lines, rainbow print and the exact colour calibration.
Level 1, printed

② Iris Print



The colours gradually change their shade from one colour to the next. Colour copiers cannot reproduce this effect and counterfeits can be detected very easily.
Level 1, printed

③ Microtext



Fineline or microprinting refers to very thin and small printed characters or entire words. Without the use of a lens the structure appears as a continuous line. The characters contained in these lines cannot be reproduced with conventional copy methods.
Level 1-2, printed

⑤ Holographic Stripe



A holographic stripe may contain individual logos, characters or other information. The holographic stripe can be implemented horizontally or vertically under the top layer of the card.
Level 1-2, applied

④ Printed Hidden Image



The Printed Hidden Image will be produced by means of a halftone displacement of the hidden image. The printed hidden image is only visible with a special decoding lens.
Level 2, printed

⑥ OVI



OVI – Optical Variable Ink is a high security feature showing different colors as the angle of view changes. Optical Variable Ink requires a support printing by a dark colour shade to get a luscious colour effect.
Level 1-2, printed

⑦ UV Print



UV (Ultraviolet) ink is invisible under regular illumination. By viewing the card under UV light, all logos, design structures or texts become visible either in blue, red or green/yellow. The UV printing element cannot be copied.
Level 2, printed

⑧ M - Feature



The M-feature is defined as a special pigment ink, which is mixed with printing ink. If the element is viewed under IR light, the special pigment ink reflects brown and green colours.
Level 2, printed

⑩ IR Feature



By means of a special decoding lens applied to an IR enabled camera, the printed IR colour becomes invisible whereas all logos, design structures or texts remain visible on the monitor. Infrared colours are invisible under the light spectrum of 800 - 1300 nm.
Level 2, printed

⑨ Kinegram®



A Kinegram® consists of microscopically tiny areas with refractive characteristics. When viewing a Kinegram® from different angles, various designs or structures become visible. A Kinegram® can be implemented in clear transparent or in metallic silver.
Level 1-3, applied

⑪ See-through Register

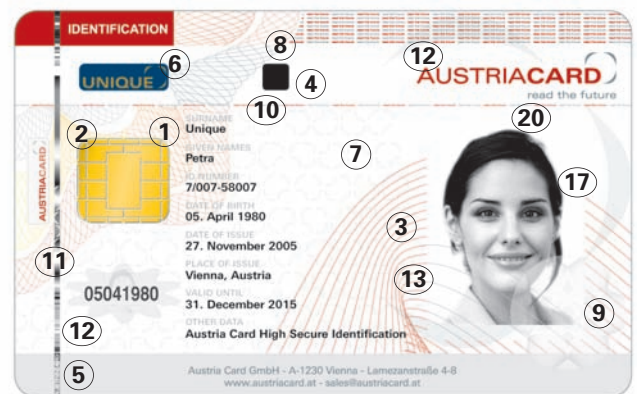


A see-through register combines both sides of the card. Parts of any shape or character will be printed on either side of the card. When holding the card against a light source, both parts merge to form a combined picture.
Level 1, printed

⑬ Positive - Negative Embossing



By means of 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 actually possible to feel the structure with the fingertip.
Level 1-2, special processing



⑫ CLI - Changeable Laser Image MLI - Multiple Laser Image



In a highly specialised processing, 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 for this feature is a tilting image. **Level 1, special processing**

Personalisation Services

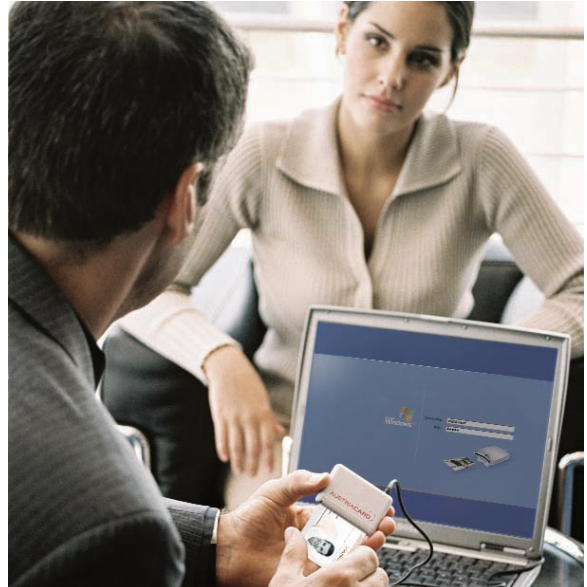
Austria Card identification cards are suitable for a variety of personalisation methods, i.e.

- High Secure Laser Engraving - Scan
- High Secure Laser Engraving - Tactyl
- Indent Printing
- Thermo Printing
- Thermo Transfer
- Positive Embossing
- Thermo Sublimation Colour
- Thermo Sublimation Greyscale
- Ink Jet Personalisation

Personalisation System Development and Set-Up

Usually, high secure identification cards and documents are personalized in the country itself. As Austria Card's has a lot of experience in processing loads of sensitive data to process high secure cards, Austria Card offers personalisation services and concepts.

The overall system security bases upon a reliable personalisation concept. No security feature on the card – except cryptographic functions – can guarantee the genuineness of a card if there is no trusted source in the issuing process.



According to the experience in many similar projects the personalisation and issuance system has to be defined in a completely different way as compared to existing paper document issuing processes. Most high security identification cards have to be personalised in a trusted central location.

Austria Card offers personalisation know-how for all card and chip card products of the own product range. It is clear that for a large-scale identity card project, there will be a local personalisation bureau. Similar to many successful banking projects, whereas Austria Card has successfully transferred know-how to third party personalisation facilities, Austria Card is ready to support the selected local personalisation house with an appropriate solution. As well, we can consult for the proper selection of equipment.

Logistics

A high secure identification card needs to be dispatched via security transport means. Austria Card offers worldwide high secure logistic chain services for any identification document – door-to-door.

International Standards

Austria Card identification products fulfil the quality requirements for standardization – i.e. DIN, ISO and ICAO – as well as the requirements of respective EU regulations.



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