mension in photo-protection
on overview

AO compliant security features

ization features for polycarbonate documents

ts to laser personalized documents

h for enhanced photo-protection with tru/window™ LOCK
company, founded in 1859
any in the development, production, integration and
of identification solutions
experience in manufacturing and personalization of
identity documents
pages for passports
entity cards
lenses, tachograph cards
permits
references in more than 30 countries over 4 continents
Other documents

<table>
<thead>
<tr>
<th>Country</th>
<th>Documents</th>
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<tbody>
<tr>
<td>Armenia</td>
<td>DL, VRC</td>
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<td>Bosnia-Herzegovina</td>
<td>ID, DL, PRC</td>
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<td>United Kingdom</td>
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<td>Uzbekistan</td>
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</tbody>
</table>
Data page made of genuine polycarbonate

- Polymer molecules
- Polycarbonate foils
- Entangled

Polymer molecules are used under heat and pressure, ensuring resistance against mechanical, chemical and thermal stress, as well as against delamination or splitting of the card body. Under normal use, the material lasts for 10 years. Finalisation is achieved by means of laser engraving.
ICAO compliant security elements

- Laser Image
- Variable Ink
- Hologram®
- Security elements:
  - positive and negative
  - laser image
  - variable ink
  - hologram®
Personalization features

Standards by laser engraving personalization
- Laser engraving
- Data inside card body
- Security features and life span
- Security features at time of personalization, e.g., marking
- Crypted information in portrait e.g., IPI
- Personalized holder images, e.g., image
- Laser images (MLI/CLI)
laser personalized documents

For engraving personalization
alteration of card holder data
by means of additional laser marking
overwriting with a different photo

Authentication laser personalization features...

need protection against such attacks depending on the security elements for safeguarding card holder portrait against...

security elements for safeguarding card holder portrait against...
Personalization feature that “locks” the portrait

For new laser personalization feature

Inclusion of a “secure” secondary portrait

Similar alteration of primary and secondary card holder presentation, understand and verify

Presentation with tru/window™ LOCK security feature

Inclusion of “negative” portrait image

Additional laser personalisation equipment

Additional dark image information by

is not possible
Duino برنامجًا لـ "LOCK"؟

العثور على جسم بطاقة من البولي كربونات مدمجًا في نافذة شفافة

نثلة تخصيص صورة ثانوية على الفولاذ الخفيف.

التمثيل|M|personalization|process|using|standard|equipment

ازن وتحقق من التأكد من الأداء.
v™ LOCK

Enhanced photo-protection feature – easy to understand and verify

Protection against post-issuance alteration of card holder photo and multilayer security thanks to combination

Personalization process using standard laser equipment
for your attention

Peter Schaer
Head of Sales EMEA & Latin America
Public Sector

Trüb AG
Hintere Bahnhofstrasse 12
5001 Aarau / Switzerland
www.trueb.ch

Phone (direct) +41 62 832 0186
Phone +41 62 832 0000
Fax +41 62 832 01 90
Mobile +41 79 251 3003
Mail peter.schaer@trueb.ch

Visit us at our booth