



The ImagePerf® security feature

Document fraud can have an enormous impact on a country's national security, politics and economy. Therefore governments seek to issue the most secure travel and identity documents in order to protect their citizens and society. Authorities issuing and verifying travel and identity documents express the need for first line security features which are easy to verify and difficult to counterfeit. ImagePerf® is a high level personalised security feature that meets these requirements.

ImagePerf® personalises each passport or identity card irrevocably. It is a repetition of the holder's photograph used to verify the original holder's image, thus guaranteeing its authenticity. Special laser technology is used to create minute holes right through the document's substrate. The holes are arranged to form an image that becomes clearly visible to the naked eye when the document is held to the light.

The holes are so small that they do not interfere with the design of the document. Security prints and personalised data remain easily legible after ImagePerf® has been applied. This allows the combination of ImagePerf® and printed

information within the limited space available on the document. ImagePerf® can be applied in



paper substrates, laminated paper substrates and full synthetic substrates.

No special guidelines, training or equipment is necessary to be able to verify the ImagePerf® feature. The feature is almost self-explanatory, as it is obvious that the printed photographs and the perforated photograph should match.

Highlights

- First line, self-explaining feature
- Personalises irreversibly
- Anti-copying device
- Does not interfere with document design
- Applied with sophisticated laser technology, impossible to imitate successfully by other means
- Exclusively for travel and identity documents
- Proven track record

Tilt your expectations



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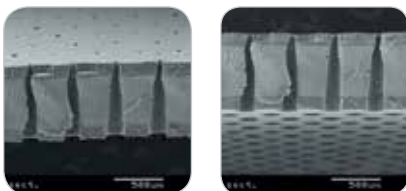
iai industrial systems

ImagePerf is an anti-copying device, as it is impossible to imitate holes using printing technology.

Threats to the integrity of travel and identity documents such as colour photocopying and computer printouts can be combated successfully with ImagePerf®. using printing technology. Laser energy creates holes right through the document, evaporating the substrate material.

It is virtually impossible to remove the perforation by replacing the substrate. This leaves forgers no other alternative than to imitate the entire document with all their unique materials and security features; a futile activity.

Laser perforations have distinct characteristics which can be easily recognised and are impossible to imitate successfully by any other means. Holes created with laser energy are conical and leave no burrs on the backside of the substrate. ImagePerf® is applied using a



technology that is totally different to the ones used for the application of the holder's photograph. This creates an additional, immense obstacle for counterfeiters and forgers.

IAI's ImagePerf® technology is based on a combination of technical disciplines and highly specialized expertise. Such extensive know-how is very difficult for outsiders

to obtain. Our ImagePerf® systems are only commercially available to the security printing sector, thereby denying criminals access to the technology. The country prefix is always incorporated in the ImagePerf®. This three letter code is fixed and secured and prevents the creation of false documents with a genuine ImagePerf® system.

ImagePerf/TLI

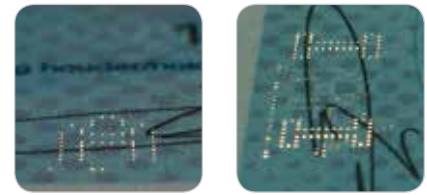
For synthetic substrates the ImagePerf can be combined with an additional security feature called TLI or Tilted Laser Image. It is an optically variable device which is incorporated in the country prefix by perforating the characters of the country prefix under two different angles. When the document is tilted to certain observation angles, the characters become gradually visible.



The substrate of the document needs to be of a certain thickness for this optical effect to work.

ImagePerf/VLI

For paper based substrates, the ImagePerf can be combined with an additional security feature called VLI or Variable Laser Image. In this case, the letters of the country prefix are perforated in short lines instead of round holes. By arranging some lines in one direction and other lines in the opposite direction, an optically variable effect is accomplished when the document is tilted to certain observation angles.



Combining ImagePerf and TLI or VLI images boosts security to an even higher level.

ImagePerf is reserved exclusively for travel and identification documents

such as passports, national identity cards, travel cards, visas, residence permits and driver licenses.

ImagePerf is applied during the document personalisation process.

IAI has a range of personalisation equipment available that can apply the feature.

ImagePerf has proven to be an effective deterrent against fraud in many different documents all over the world. Governments have repeatedly chosen IAI's ImagePerf feature to protect their most valuable documents:

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|-------------|-------------|
| Algeria | Poland |
| Belgium | Portugal |
| Bulgaria | Romania |
| Costa Rica | Sweden |
| Ireland | Switzerland |
| Morocco | Thailand |
| Netherlands | Ukraine |
| Norway | |

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