

# PaperProtect<sup>™</sup> for Security Documents

PaperProtect™ introduces a level 1 & 2 security feature for paper to create a tamper-proof passport where counterfeited and forged documents can be rapidly and easily recognised. The feature consists of the combination of two images (or other personal data) personalised at different penetration depths into the paper. The image located inside the paper is a chemical watermark that (partially) overlaps with a second image on top of the paper.

### Feature Benefits

**Level 1 security feature** – Both the information located inside and on top of the paper are always visible under white light in reflection, so they can be rapidly and easily inspected. Furthermore, the information inside the paper has similar visual characteristics to a traditional watermark.

**Level 2 security feature** — When using UV-fluorescent ink, a second check to verify the first image inside the paper can be done easily and rapidly using UV light. Furthermore, the UV-fluorescent image is seen from both the front and the back of the paper; as opposed to a UV-fluorescent image placed on top of the paper that is only seen from the front side.

**Full page protection** — The feature is personalised throughout the thickness of the paper, can be seen from both the front and back side and can be located partially or fully covering the passport page.

**Durable and irreversible** – The first image placed inside the paper is permanent and anchored to the paper thanks to the use of UV-curable inks that form an insoluble polymer network, making its removal impossible without damaging the paper and or losing the UV-fluorescent properties.

Flexibility in design—PaperProtect<sup>™</sup> is easily implemented and complementary to the security printed design and paper features. It combines variable data securely with traditional proven features.

## PaperProtect<sup>™</sup> - Design Options







#### **TextProtect**

The biometrical data can be made tamper-proof by making use of **PaperProtect**<sup>™</sup>. To accomplish this the text needs to be overlapping the portrait, where the data is placed inside the paper and the image on top to get all the benefits from **PaperProtect**<sup>™</sup>.

#### **PageProtect**

The security of the full page, including various security features from the front and the back, can be enhanced by repeating personalised data that is located inside and all over the paper page.

#### **ImageProtect**

The portrait image, located on the top surface of the paper, can be made tamper-proof with **PaperProtect**™. To accomplish this, a repetition of the portrait needs to be placed inside the paper and partly or optionally fully aligns with the image or data printed on top.

## Resistance Towards Forgery

As the world becomes more complex and forgery raises its presence, IAI Industrial Systems B.V. developed **PaperProtect**™ to enhance the security of Passports with paper or polycarbonate data pages. With this feature it is possible to place personalised data both within the paper and on top. The personalised data inside the paper enhances the security of the document as it is virtually impossible to remove from the paper without clear evidence of forgery. Thanks to the insoluble polymer network intertwined with the paper fibres that is formed during the personalisation of the passport, the information cannot be removed without leaving evidence of alteration.

**PaperProtect**™ can be installed on the BookMasterOne and BookMasterPro. IAI continuously creates high technology solutions and accommodates to your project specific requirements in order to enable you to issue top secure documents every day for many years.



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