



## Sealys Color in PC

**Indisputable proof of identity now in high-definition color for cards and passports**

The security printing industry has long pursued to unite the benefits of laser-personalized polycarbonate ID with the detail and richness of color photography. Color photo protected with overlay resulted in compromised card integrity, while personalization at the time of manufacturing made issuance entirely inflexible. Now Gemalto makes it possible to personalize a high-resolution color photo directly inside the card body using post-production technology.

# Sealys Color in PC

Sealys Color in PC is the first laser engraving solution to deliver an unalterable color image combined with the high security and exceptional durability of polycarbonate.

- High-definition photo quality
- 10-year card service life
- Full range of tamper-proof security features
- Personalization at your fingertips

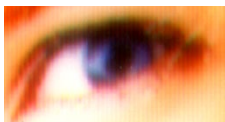


### How the picture gets inside

Color laser marking is based on the principle of selective bleaching. During manufacturing, photosensitive pigments are sealed inside the polycarbonate card body. The Sealys Color in PC solution features an optical laser beam with deflection system for precision focus. During the separate personalization phase, laser light irradiation bleaches the pigments to achieve a nuanced reproduction of the original color image, embedded inside the card.

### High-definition photo quality

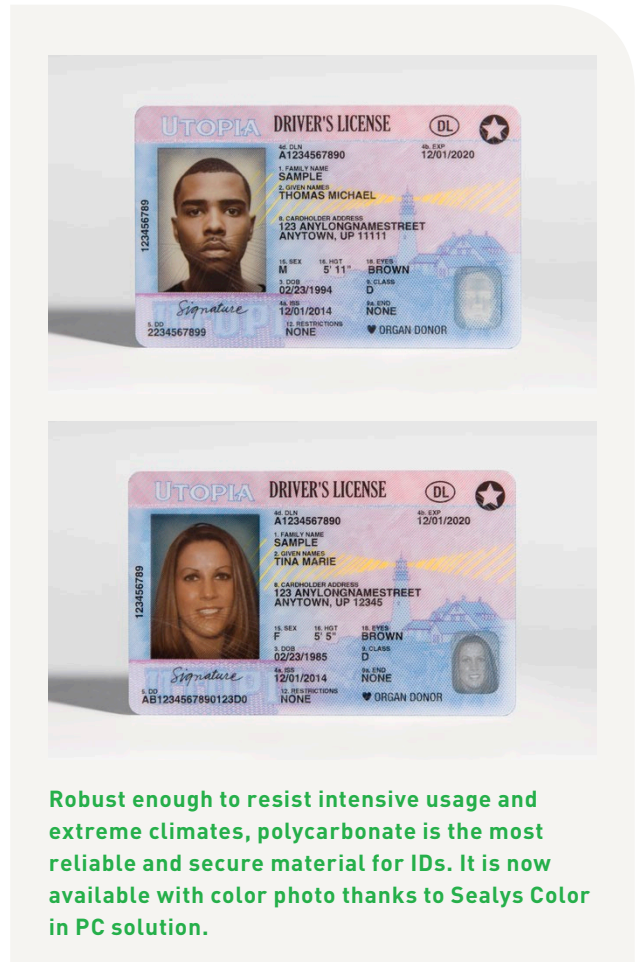
The most widely used polycarbonate ID personalization solutions produce only grayscale images. Sealys Color in PC produces finely detailed high-resolution color photos that facilitate recognition of facial features and skin tone. The color image of up to 1200 DPI enables more accurate on-the-spot identification at border checkpoints. Irreversible deep-set laser personalization and enhanced security features—such as microtext—make alteration of the secure color photo virtually impossible. What's more, the high-quality color image is easily distinguishable from other color technologies on the market today.



Standard D2T2 at 300 dpi



Sealys Color in PC at 1200 dpi



**Robust enough to resist intensive usage and extreme climates, polycarbonate is the most reliable and secure material for IDs. It is now available with color photo thanks to Sealys Color in PC solution.**

### 10-year card service life

The Sealys Color in PC solution features a 100% polycarbonate card body. An exceptionally robust material, polycarbonate has been demonstrated to resist the most extreme thermal and mechanical stress tests. More importantly, polycarbonate ID cards stand up very well to intensive usage, guaranteeing a service life of at least 10 years in all climates. This exceptional durability prevents costly, unnecessary ID document replacements.

### Full range of tamper-proof security features

Sealys Color in PC cards can be combined with a range of built-in Level 1 security features, such as Sealys Changeable Laser Image, Multiple Laser Image and surface embossing. The various layers of polycarbonate fuse together with all security features during manufacturing to form a single, solid card body. This preserves the integrity of the ID document, providing maximum protection against forgery and tampering.



### Personalization at your fingertips

Because personalization is performed in a separate step from card body manufacturing, authorities can oversee issuance independently of a third party. Following project rollout with implementation support from Gemalto's experts, issuance authorities have everything they need to perform card personalization themselves, with no more consumables to buy ever. The color laser marking process entails only the operation of a specially outfitted Coesys Issuance unit, eliminating the need to communicate cardholder data to the card manufacturer.

### A complete end-to-end offer

- > Sealys Laser Secured polycarbonate card body with photosensitive pigment layer
- > Customizable range of Level 1, 2 and 3 security features, including exclusive Gemalto technologies
- > Coesys Issuance solution outfitted with Sealys Color in Polycarbonate optical laser beam



Sealys Edge Sealer laser-etches markings along the edge of the document for an additional layer of security.

### 25 years of innovation in polycarbonate ID

Sealys Color in PC personalization is the latest breakthrough in Gemalto's long track record of innovation in polycarbonate ID. The company introduced the first polycarbonate ID document in 1989 (Finnish driver's license), later introducing the first polycarbonate passport datapage in 1997 (Finnish passport). With over 50 Common Criteria and 10 FIPS certificates awarded to date, security lies at the heart of Gemalto's Sealys range of ID documents. Gemalto currently contributes to over 25 national eID, eResident and driver license programs in Europe (Belgium, Czech Republic, Denmark, Finland, France, Ireland, Sweden, Portugal, Lithuania and the UK), the Middle East (Qatar, Oman, UAE, Bahrain and Saudi Arabia) and elsewhere in the world.

### Sealys Color in PC now available for passport datapage

Polycarbonate passport datapages can be personalized using the same post-production color technology, offering high-resolution color photo together with the best security and durability provided by polycarbonate to passports.

## About Gemalto

Gemalto is the world leader in digital security with 2014 revenues of €2.5 billion.

In the public sector, Gemalto provides secure documents, robust identity solutions and services for governments, national printers and integrators in the service of citizens. Its products and solutions are deployed in more than 100 government programs worldwide.

Gemalto is contributing to 40 eID and eResidence Permit initiatives, more than 30 ePassport programs with specific expertise in border and visa management projects. The company is active in major eHealthcare schemes and numerous e-driving license and vehicle registration projects.

Gemalto also collaborates with its clients to report and share best practices from around the world.