

## ► POLYCORE

### INKJET PROCESS FOR COLOUR PERSONALISATION OF POLYCARBONATE DOCUMENTS



[www.bundesdruckerei.de](http://www.bundesdruckerei.de)

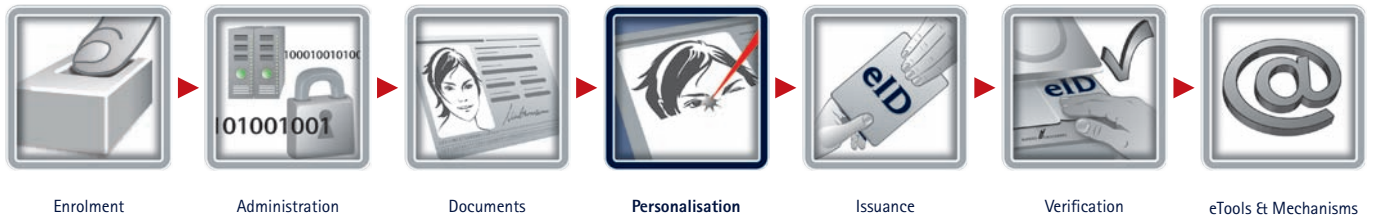
POLYCORE is the name of a new technology from Bundesdruckerei for colour personalisation of high-security polycarbonate documents. At the heart of this process, the first of its kind worldwide, are specially developed inks – POLYCORE Inks – which have a chemical composition that allows them to form a permanent bond with the card core.

This means that security elements, such as the photo or the card holder's signature, can be integrated and displayed for the first time ever in outstanding colour brilliance. The perfectly adapted POLYCORE print process also enables a host of different, individual personalisation and design options.

Strict security standards, powerful and flexible printing technologies, innovative materials and comprehensive support services – you're always on the safe side with POLYCORE, the unique colour personalisation system from Bundesdruckerei.

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**What POLYCORE can do:**

- Colour personalisation of polycarbonate security documents
- Very secure integration of multi-colour data directly into the core of the card
- Outstanding colour brilliance guaranteed
- Integration of personalised UV security features in outstanding quality
- Optional integration of hidden security features, such as:
  - surfaces printed in full colour without the risk of de-lamination
  - watermark
  - transparent edge structures
  - window technology
  - customer-specific image information

**What POLYCORE Ink makes possible:**

- Fully compatible with the polycarbonate card core
- Optimised for the POLYCORE print process
- Special, customer-specific inks can be integrated, for instance
  - IR-absorbing
  - IR-transparent
  - UV-fluorescent

**What the POLYCORE print process has to offer:**

- Scalable print processes:
  - Personalisation of 500 to 1,000 cards per hour in excellent colour quality
  - Resolution: 720 dpi (can be enhanced to meet customer needs)
  - Personalisation of polycarbonate foils, from 50µm to 200µm thickness
  - Flexible print process control (roll-to-roll, optional: roll-to-sheet)
  - Use of industrial print heads with circulating ink supply systems
- Easy adaptation of the print process:
  - Software can be freely configured
  - IT systems can be expanded using simple integration tools
  - Attractive and user-friendly graphical user interface
- Optimum processes and product quality ensured:
  - Automatic print head cleaning system
  - Innovative inline inspection system
  - Non-stop print process during roll and job change
  - Use of additional 2D security bar codes for tracking