

VERIDOS

IDENTITY SOLUTIONS

by Giesecke+Devrient
and Bundesdruckerei

State-of-the-art color personalization technologies for polycarbonate IDs

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Agenda

Color photo and laser engraving

New approaches

Two color personalization technologies

Challenges & solution

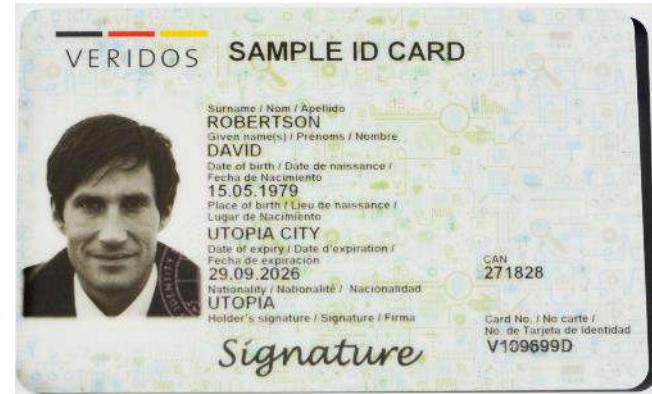
Let's watch it!



30
years of laser
engraved IDs

1972

First digital
color photograph
published



Governments and citizens want

IDs with color pictures



Color personalization technologies

Traditional color printing techniques

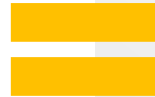
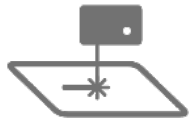
Inkjet or dye-sublimation

Dye-sublimation

(Re-)Transfer

Techniques based on laser technology
examples: LASINK, Sealys Color

2016 Cameroon National eID	2016 Burkina Faso Driver's License	2016 Costa Rica National ID	2017 Andorra Electronic Passport	2019 Estonia National eID
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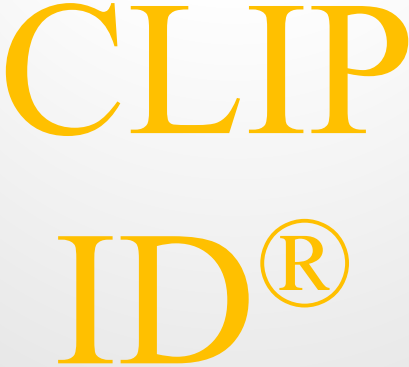
Challenge for color picture on
polycarbonate IDs

*Security, durability, color quality
and cost hinders satisfying results.*

The goal: offer color personalization
while enhancing security

Production

Personal-
ization



POLY- CORE®





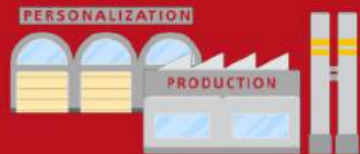
Germany*

(eID, residence permit, ePassport)



ID-1 and ID-3
format

POLYCORE®: no blank documents
produced for outmost security



Centralized personalization
combined with production



Inkjet with tailored inks

>70

MILLION
documents issued since
2010

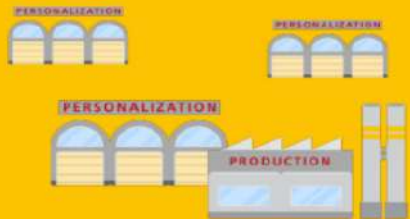


Bangladesh (ePassport)

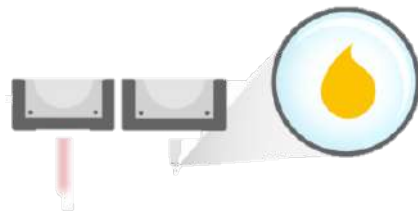


ID-1 and ID-3
format

CLIP ID[®]: new solution for flexible
personalization processes



Centralized or decentralized
personalization



5
MILLION
annual volume and
counting

CLIP ID® technology:

Laser Protected Image (LPI) as the basis



How to ensure ink abrasion resistance and adhesion while maintaining maximum **security** and process **flexibility**?



How to protect the ink on the surface technically?



How to avoid costly protection mechanisms for the color photo?



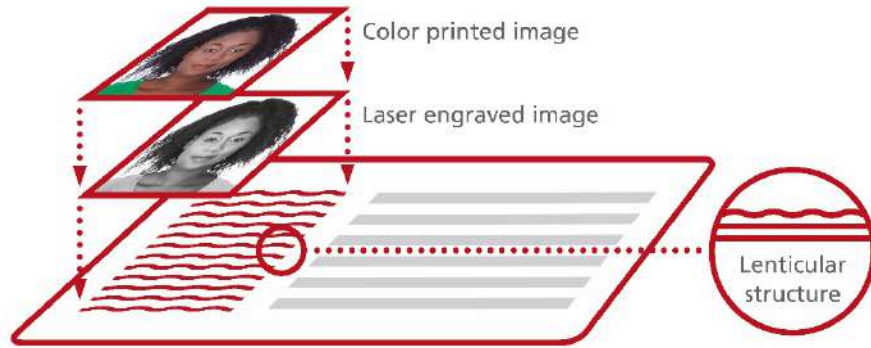
The solution:

Increase the „penetration depth“

of the ink

“

*If you prepare the card surface with **lenticular structure** similar to MLI / CLI,
the ink is dripping into the lenticular structure to bond with the body.*



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Visit us at booth #H1