

# Product portfolio

## neobond® security substrates

For robust security!

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*We define the sector of security substrates and offer intelligent solutions for the optimization of security functions.*

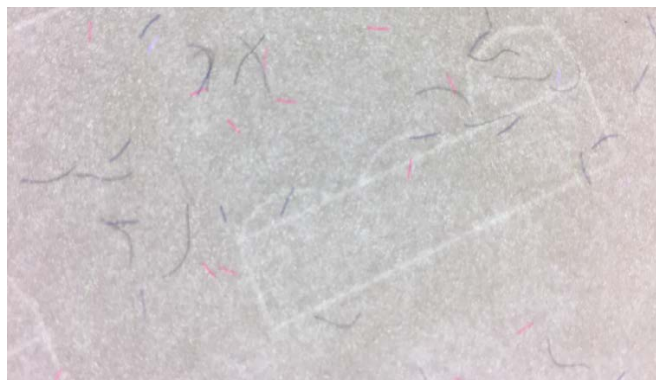
*Our range of durable and extremely robust neobond® security substrates is perfect to use for documents in all kinds of security applications. It is long-time proven, with its original formulation ranging back over 50 years and having been applied in numerous governmental use-cases. The new generation has been further improved for performance, personalization and security.*

*Security Documents need to be appropriate for their respective use-case. Travel documents, authorization certificates, Personal-IDs, camp-management, land*

*titles, vital records etc. In many cases the documents are exposed to severe use. On one hand due to exposure to the elements. On the other hand due to the way the documents are stored or carried.*

*Furthermore neobond® security substrate integrates essential security features as required in the minimum-security standards stipulated by international organizations.*

*neobond® combines the best characteristics of security paper with its variety of embedded security features with the outstanding durability and robustness of plastic card films and the touch of nonwoven textiles.*



neobond® security substrate is a specially impregnated synthetic fibre substrate with a broad range of embedded security features, offering extremely high wear and ageing resistance, together with outstanding folding resistance and printability, including continuous form printing. Also highly suitable for hot embossing and stitching.

## The product portfolio

### 1. neobond® security substrate

Two-side coated and impregnated security substrate, which contains pulp, synthetic fibres and synthetic binders in a ratio of approx. 50% synthetic and 50% wooden pulp.

Grammages range: 120 – 250 g/m<sup>2</sup>

Colours: seven standard colours; customised colours available on request.  
OBA free

Available embedded security features:

- a. customised watermark
- b. visible fibres in various colours and specifications as per customer requirements
- c. UV fluorescent fibres in various colours and specifications as per customer requirements
- d. UV fluorescent planchettes
- e. IR-markers
- f. chemical reactive top-coating

### 2. neobond® security substrate for inkjet printing

Two-side coated and impregnated security substrate, which contains pulp, synthetic fibres and synthetic binders in a ratio of approx. 50% synthetic and 50% wooden pulp. The top side has an additional receptive inkjet coating.

Grammages range: 120 – 200 g/m<sup>2</sup>

Colour: white  
OBA free

Available embedded security features:

- a. customised watermark
- b. visible fibres in various colours and specifications as per customer requirements
- c. UV fluorescent fibres in various colours and specifications as per customer requirements
- d. UV fluorescent planchettes
- e. IR-markers

### 3. neobond® security substrate for card production

Fully impregnated security substrate, which contains pulp, synthetic fibres and synthetic binders in a ratio of approx. 50% synthetic and 50% wooden pulp. Printing possible with conventional printing technologies as well as inkjet and toner laser printers.

Grammage: 300 g/m<sup>2</sup>

Thickness: 400 µm

Colour: white

OBA free

Embedded security features:

- a. watermark
- b. visible fibres
- c. UV fluorescent fibres
- d. UV fluorescent planchettes

#### **Key performance parameters and test norms**

- Outstanding durability in terms of life-time and frequent use (robustness)
  - DIN ISO 9706
  - The products are classified according to DIN 6738 life cycle classes into the category “non-aging” for highest requirements
- High wet strength characteristics
  - Laundry test (ISO 17745-1)
- Tear- and wear strength
  - DIN EN ISO 1974
- Chemical resistance (sodium, acids, etc.)

#### **Printing and Converting**

Printing:

- Pre-Print, traditional printing technologies
  - Offset
  - Intaglio
  - Guilloche
  - Micro text
- Personalisation (digital printing)
  - Dry toner
  - Laser
  - Zebra
  - Water based inkjet with pigmented inks, also in high resolution (> 300 dpi)  
Approved on Troy inkjet printers (Only valid for product group neobond® security substrate for inkjet printing and for cards)

#### Converting:

- Approved hologram application
- Kinegram® approved
- Approved application of IQ Structures holograms
- Application of Schreiner seals
- Embossing
- Creasing and folding (high double folds)
- Perforations

#### **Features and Benefits**

- Extremely durable and long lasting
- Excellent dimensional stability (also in difficult climatic environments)
- High tear resistance
- High folding strength
- Resistant to ageing
- Water resistance
- Wet strength
- Resistant to many chemicals and solvents
- High temperature resistance
- Small minimum quantities even for tailor-made products
- Unique feel

#### **Application Examples**

- Car registration documents
- Breather documents
- Healthcare documents
- Personal-ID documents
- Inlay-paper for e-passport
- Land titles
- Certificates and Diplomas
- Admission cards