



## Innovative Inks & Functional Lacquers

# Screen Printing Systems for Plastic Cards

The production of plastic cards not only involves various types of plastic materials, but also a number of different printing processes and ink systems.

The decoration of cards with metallic and effect pigment inks is realized by the screen printing process primarily. Pröll offers solvent- and water- based screen printing inks and innovative UV curing inks with excellent lamination and bonding properties.

The plastic cards can be overprinted with UV screen printing lacquers to protect the decoration, to adjust the gloss level and for improving the scratch resistance.

For the production of complex cards in multi-layered material construction, core films and overlay films must be laminated thoroughly. Various screen printable adhesion promoters and ink systems for the perfect bonding of the plastic films are available.



## Solvent-based Inks

Designation	Color Shade	Characteristics	Substrate
<b>NoriCard</b>			
NoriCard 093	Colorless		PVC
NoriCard 776	Silver Medium Coarse		PVC
NoriCard 781	Silver Coarse		PVC
NoriCard 786	Silver Coarse		PVC
NoriCard 863/026	Pearlescent Gold		PVC
NoriCard 172	Yellow Transparent	transparent color shades for mixing	PVC
NoriCard 370	Red Transparent		PVC
NoriCard 945	White		PVC
NoriCard 948	Black		PVC
NoriCard 078	Colorless Turbid	addition improves printability of NoriCard metallic inks in offset printing	PVC
<b>NoriCard LSI – free of aromatic solvents and cyclohexanone</b>			
Color shades – see NoriCard			PVC
<b>NORIPHAN® HTR N – for polycarbonate cards</b>			
Color shades on request – for security applications			PC
<b>AquaCard® – water-based ink</b>			
Color shades on request – comparable to NoriCard			PVC, PC
<b>Signature Field Inks NoriCard SG</b>			
NoriCard SG 093/001	Colorless Turbid	quick drying of signature	PVC, PC
NoriCard SG 093/003	Colorless Turbid	more transparent than SG 093/001	PVC, PC
NoriCard SG 945/001	White Opaque	very fast drying of signature	PVC
NoriCard SG 945/002	White Opaque	for cards printed with UV lacquer; requires preliminary testing	UV lacquer
NoriCard SG 944	White Highly Opaque	good reproduction of details, excellent opacity	PVC



## UV Curing Ink Systems

Designation	Color Shade	Characteristics	Substrate
<b>NoriCure® CCI</b>			
NoriCure® CCI 781	Silver Coarse		PVC
NoriCure® CCI 863/003	Pale Gold Coarse		PVC
NoriCure® CCI 093	Colorless		PVC
NoriCure® CCI 172	Yellow Transparent	transparent color shades for color matching	PVC
NoriCure® CCI 370	Red Transparent		PVC
NoriCure® CCI 945	White		PVC
NoriCure® CCI 948	Black		PVC
NoriCure® CCI 944/004	White Highly Opaque		PVC
<b>NoriCure® CCI LED – UV LED Curing Screen Printing Ink</b>			
Color shades – see NoriCure® CCI			PVC
<b>UV Lacquers</b>			
NoriCure® CSR 03	Transparent glossy	scratch resistant lacquer	PVC, PC, PET
NoriCure® CSR 02	colorless matt	scratch resistant lacquer	PVC, PC, PET
<b>Signature Field Inks NoriCure® SF</b>			
NoriCure® SF 093	Transparent		PVC, PC
NoriCure® SF 944	White Opaque		PVC, PC

## Adhesion Promoters

Designation	Color Shade	Characteristics	Substrate
AquaPress® CA LT	Colorless Turbid	can be laminated at 90 °C (194 °F)	PVC, PC
AquaPress® CA HT	Colorless Turbid	can be laminated at 140 °C (284 °F)	PVC, PC
NORIPHAN® HTR N 093	Colorless	can be laminated at 180 °C (356 °F)	PC
NoriPress® SMK	Colorless Turbid	can be laminated at 100 °C (212 °F)	PVC, PC

## NoriCard – Solvent-based Screen Printing Ink for Lamination of PVC Films

For the screen printing ink system NoriCard, a wide range of metallic color shades is available for printing on PVC films. NoriCard can be laminated with PVC overlay films at 140 °C (284 °F). Addition of NoriCard Offsetprimer 078 improves the acceptance of offset inks.

## NoriCard LSI – Solvent-based Screen Printing Ink for Lamination of PVC Films

NoriCard LSI is a user-friendly ink system, formulated without aromatic solvents and cyclohexanone.

## NoriCure® CCI – UV Screen Printing Ink for Lamination of PVC Films

The UV screen printing ink NoriCure® CCI is suitable for the manufacture of PVC cards.

In addition to the benefits of UV curing, it offers easy processability and bonding strength with coated overlay films.

## NoriCure® CCI LED – UV-LED Curing Screen Printing Ink for Lamination of PVC Films

NoriCure® CCI – is perfectly suited for the innovative UV-LED curing process.

## NORIPHAN® HTR N – Solvent-based Screen Printing Ink for Lamination of PC films

NORIPHAN® HTR N is suitable for the production of PC cards and security documents.

## AquaCard® – Water-based Screen Printing Ink for Lamination of PVC & PC films

AquaCard® is a water-based ink system for the production of PVC, PETG and PC cards.

NoriCard, NoriCure® CCI, NORIPHAN® HTR N and AquaCard® ink systems are characterized by excellent printability, high-grade pigmentation and high bonding strength. A wide range of metallic and effect colors is available.

## Protective UV Lacquers

Excellent surface protection can be achieved with the glossy, scratch resistant UV lacquer NoriCure® CSR 03 which can be used for PVC and PC cards at lamination temperatures between 140 °C (284 °F) and 180 °C (356 °F). With NoriCure® CSR 02 is a matt version available as well.

## Adhesion Promoters

Screen printable adhesion promoters bond core films with overlay films during the laminating process. Optimally adjusted to lamination temperatures from 90 °C (194 °F) to 180 °C (356 °F), various AquaPress® adhesion promoters are available.

AquaPress® adhesion promoters are water-based with low VOC content and odorless. The solvent-based adhesion promoter NoriPress® SMK can be used as an alternative and is especially suitable for laminating problematic substrates.

## Signature Field Inks

The signature field inks NoriCard SG and NoriCure® SF are available in a range from transparent/turbid to white opaque and suitable for printing PVC and PC monocard or overlay films.

The printed signature fields are smear-proof and can be written on with felt tip or ballpoint pens.

Contact us – we develop printing solutions for your specific requirements!

