

Technical Datasheet

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Product Name

SICURA Card 110N WA

1. Description / Application

SICURA Card 110N WA is suitable for printing with waterless Toray plates.
SICURA Card 110N WA is a universal waterless series, dedicated to a wide range of machines and substrates.
The inks of this series give good lamination properties for credit- and phone cards.

2. Product Safety

Intended Use

Food packaging, pharma, or hygiene: **NO**

Only acceptable for food packaging if the processing conditions rule out the possibility of set-off in the reel or stack and the design of the final printed article ensures reliable functional barrier properties to migration. For further information, please refer to **Siegwerk's Customer Guidance: Printing Inks for Food Packaging ("Know How")** on <https://www.siegwerk.com/en/our-responsibility/product-responsibility/customer-communications/food-packaging-safety.html> in particular chapter 5. "The printer's selection of ink" has to be observed.

3. Properties / Substrates

Substrates

SICURA Card 110N WA is suitable for following substrates. However, individual tests under original conditions have to be carried-out before printing.

- high gloss cardboard and paper
- hard and soft vinyl
- coated metallic substrates
- pre-treated plastic films

This series is not recommended for hot stamping application and is not suitable for thermal transfer.

In case of doubt, please contact in time our technical department.

4. Printing and processing instructions

UV overprintability

Following varnishes were especially formulated to guarantee best possible compatibility:

- 85-601694-4** (Flex VARNISH RESISTANT (31371))
- 75-600564-1** (Litho Offset Glossy VARNISH (990))

Lamination

SICURA Card 110N WA is suitable for lamination. However, the lamination process depends on the conditions of curing, the quality of overlay and the composition of the ink. Therefore, we recommend a test before each new job or application. Siegwerk disclaims any responsibility for problems of delamination occurred without prior testing.

To obtain a good bond strength between the different layers:

- Good UV curing conditions are necessary.
- Good adhesion of the printed inks on the substrate is required before lamination.

- Primer **85-601806-4** (Offset Primer varnish) can solve adhesion problems and consequently reinforce delaminating resistance.
- Overlays coated with an adhesive are strongly recommended.

Excessive addition of anti-toning additive **71-470064-8** (ADD Levelling agent E53) will decrease delaminating resistance. High deposit or multi-superposition are critical for delaminating resistances. Full solid printing of metallic inks is also not recommended.

Curing speed

SICURA Card 110N WA products achieve good curing in web printing or sheet-fed under normal drying conditions. However, reactivity depends also on the substrate, the condition of the lamps, the conditions and adjustments of the reflectors, the thickness of the ink layer, type of colours, etc.

In case of doubt, please contact in time our technical department.

Guidelines for use

Before the print job is started, new materials must be checked for compatibility with the inks of this series or with the planned ink-/overprinting varnish combination, even if their suitability on a comparable type of the same substrate group is proved.

The test prints, especially on self-adhesive labels, have to be examined after die-punching (in particular at the edges), for adhesion, resistance to scratching and water (resistance to wet scratching and scuffing), adhesion and scratch resistance after heat-sealing, resistance of the printed ink to the packaging contents and other application-specific requirements.

Due to the post-curing process, these properties may change during the first 24 hours after printing. Therefore please make a re-check after one day.

Consequently, for every new job in which printing is done on a known material, but with untested ink and printing combinations, the aforementioned tests have to be carried out as well.

Stir up well each ink or varnish before use. Mainly whites, colours containing white, varnishes, mat varnishes as well as gold and silver inks show sedimentation of essential components. The products of this series contain additives, which can part from the rest of the ink and lead to inhomogeneous print quality.

Do not handle products without having consulted the corresponding safety data sheets. We supply them together with the first shipment.

Cleaning

The inks can be removed from tools by using methoxypropanol. To clean the sensitive waterless plates correctly, please follow the recommendations of the plate supplier or contact our technology department. Reactive UV thinners are not suitable for cleaning.

5. Shelf life

The inks of this series have under normal conditions a shelf life of **at least 12 months**. Within this period the products are usable according to the indications of this data sheet.

Normal conditions mean:

- Storage in firmly closed, not yet tapped containers.
- Temperatures not exceeding 20°C for weeks or 25°C for days.
- Do not expose open containers to direct sunlight or strong light sources.

6. Product list

Product name	Product code	Light Resistance on wool scale WS (ISO 12040)	Solvent Resistance (ISO 2836)	Alcohol Resistance (ISO 2836)	Alkali-/ Soap Resistance (ISO 2836)
Card 110N Process Yellow C 104	70-380181-1	4-5	5	4-5	5
Card 110N Process Magenta C 101	70-880155-0	4	4-5	2-3	2-3
Card 110N Process Cyan C 102	70-113258-1	7	5	5	5
Card 110N Process Black C 114	70-980202-9	5	5	5	2-3
Card 110N Process Black C Scratch resistant	70-900302-4	4-5	4-5	5	2-3
Card 110N Orange 590	71-710215-6	5-6	5	5	5
Card 110N Red 032 C 108	71-880275-4	5	4-5	5	5
Card 110N Rhodamine Red	71-880276-2	3-4	2	2	4
Card 110N Purple C 118	71-100832-6	7	5	5	5
Card 110N Violet 111	71-100833-4	7	4	4	5
Card 110N Blue 222	71-113316-5	7	5	5	5
Card 110N Green 113	71-510514-4	7-8	5	5	5
Card 110N Black 869	70-980201-1	7	4	4	5
Card 110N Deep Bluish Black 300	71-980265-4	7	4	4	5
Card 110N Opaque White 250	71-010159-3	8	5	5	5
Card 110N Transparent White 850	71-004043-7	-	5	5	5
Card 110N Transparent White 589	71-004042-9	-	5	5	5
Card 110N Orange 106	71-710210-7	5-6	5	5	5
Card 110N Reflex Blue 112	71-110572-6	4	1-2	1	5
Card 110N Purple 224	71-880304-2	7	5	5	5
Card 110N Warmred 107	71-880292-9	5	3-4	4-5	5
Card 110N Process Yellow C (fast) 979	70-380179-5	5-6	4-5	5	5
Card 110N Process Magenta C (fast) 980	70-880156-8	6-7	5	5	5
Card 110N Warmred (fast) 544	71-880281-2	6-7	4-5	5	5
Card 110N Rhodamine Red (fast) 211	71-880279-6	7	5	5	5
Card 110N Reflex Blue C (fast) 557	71-113364-5	7	5	5	5
Card 110N Process Black C (fast)	70-900250-5	6-7	5	5	5
Card 110N Red PMS 485 C	71-800973-1	4	4-5	2-3	2-3

Fanal-shades are available upon request. Since fanal-dyes have a high bleeding tendency, tests have to be carried-out before printing.

Because of the differences in materials for printing, processing conditions and test criteria this Technical Data Sheet can only be of an advisory nature. Our data reflect the latest state of our knowledge and are based on the characteristics established in the laboratory and on practical experience. Your own tests with the original materials under the respective conditions are indispensable. We disclaim any liability for applications for which this ink series is not foreseen.