



DESCRIPTION

SICURA LM361 is a free radical UV-curing system especially developed for food and pharmaceutical packaging applications.

APPLICATION FIELDS / MARKET

SICURA LM361 is dedicated to food and pharmaceutical packaging applications, including printing on the outer surface of primary food packaging needing low odour and low migration in conformity with the requirements of the regulations.

PRODUCT SAFETY

Intended Use

Food packaging: YES

Compliance Management

In the manufacture of food packaging, the printer and/or packer/filler have the responsibility to ensure that there is no migration of concern through the substrate and/or via set-off from the printed outer side to the food contact surface in the stack or the reel.

The "Customer Guidance: Printing Inks for Food Packaging" has to be observed.

Please refer to this document and to our **Good Practice Guide** for Food Packaging Sheetfed & UV" which can be easily down loaded from our web site www.siegwerk.com/productsafety

SICURA LM 361 inks series for primary food packaging is formulated and produced in accordance with the "EuPIA Guideline on Printing Inks applied to the non-food contact surface of food packaging materials and articles" as set out in the Customer Information leaflet "Printing Inks for Food Packaging"

- In particular, **SICURA LM 361** products represent a new generation of inks exclusively formulated with selected components, so as to both minimize potential migration of concern through the substrate and the set-off from the printed outer side to the food contact surface in the stack or the reel.
- **SICURA LM 361** formula does not contain the following :
 - Basic dye complex ("fanal") pigments and barium-organic pigments with high bleeding tendency,
 - Low molecular weight acrylates with potential to leave undesirable contents of free monomer in the cured printed layer, and with high potential to migrate into food at undesirable levels,
 - Low molecular weight photoinitiators and synergists with potential to remain largely non-bound in the cured printed layer and/or to release photocuring breakdown substances at levels of concern, thus with high potential to migrate into food at undesirable levels and to cause an unacceptable odour and off-flavour risk.

With this advanced design, a high degree of ink-side safety is provided, enabling the converter to produce packaging, which is minimized in sensory impact and migration of concern according to today's standards.



Note that set-off and migration are dependent on the processing conditions such as efficiency of the lamps, reflectors, thickness of the ink layer, colour and sufficient barrier properties of the substrate. Particular consideration for these parameters, and for the selection of non-bleeding ink references with resistant pigment, is required in case of demanding areas such as packaging for :

- organoleptically sensitive foodstuffs in general
- liquid or pasty, fatty and/or aqueous or acid food
- pasty or solid fatty food

and such as place mats with possibility of short-time food contact.

You will produce a safe packaging material if you observe good printing practices and restrictions as outlined in the Technical Information mentioned above. In particular, these inks are not approved for direct contact with food, separated from it or not by a varnish layer. Please contact us if you plan to produce place mats.

RESPONSIBILITY

The manufacturer of the finished printed article and the filler have the legal responsibility for compliance.

The instruments for verification of compliance of the printed and dried layers are assessments done by the printer on the final packaging.

Material combinations are under your own control. You should conduct representative analytical investigations, such as organoleptic and migration testing, to cover each relevant application category. SIEGWERK will identify specific components whose migration should be monitored to assess compliance, and make available such information to those parties specifically involved in the compliance control.

SIEGWERK will inform you on bodies that provide the required capabilities and analytical sensitivities for the qualified verification of printed packaging.

SUBSTRATES

- All kinds of papers and boards
- Selected brands of PE-coated board (Corona treated)

Preliminary adhesion tests are recommended on impervious substrate.

FEATURES - PERFORMANCES

⇒ **ON THE PRESS SIDE**

- Suitable for all dampening systems with or without alcohol
- Good stability and water / ink balance
- High reactivity

⇒ **ON THE PRINTING SIDE**

- Good lithographic behaviour
- Extra low residual odour, off-flavour and migration risk
- Over-printable with UV varnish, please contact our technical department for recommended products.



WARNING

- These UV inks are guaranteed for a period of 12 months after manufacture. Please check use by date indicated on the cans.
- UV inks must be stored in a cool place
- Open containers must be kept away from light sources and be closed after usage.
- Please consult material safety data sheets (MSDS) for more information.

AUXILIARY PRINTING ADDITIVES

When certain substrates or machine conditions imply adjustments of the ink properties, the additives should be chosen in function of this substrate and of the further processing of the printed matter

Since addition of additives may have an influence on migration & organoleptic properties, printer is encouraged to take into account any product addition in the risk assessment of corresponding food packaging application

Role	Designation	New Reference numbers	Old Reference numbers	Proportions
Reducer	Reactive reducer	81-470072-0	02UI006342	1 to 3 %
Tack reducer	Anti-tack paste	71-470085-3	02FI896503	1 to 3 %
Cure booster	Photoinitiator	81-470075-3	02FI896095	1 to 3 %
Mixt cleaning product	Solve 22	75-650144-1	02JI000022	pure

For Fountain please contact our technical department.

PACKING SIZE

- ✓ Vacuum Metallic Tins 2.5 kg Packaging code 1200
- ✓ PE pail Red 10 Kg Packaging code 1070
- ✓ Steeldrum 200 Kg Packaging code 1490

This information is based on our experience and on results obtained in the laboratory, using specific processes and types of application. In view of the diversity of substrates and printing conditions, this data is communicated for information purposes only and is provided without any warranty on our part and must be authenticated by industrial tests before the products are used. Improvements are being made to our products on an ongoing basis and we therefore reserve the right to modify their composition as well as the contents of our technical data sheets. We disclaim any liability for applications for which this ink series is not foreseen.

These products are only suitable for use on the non-food contact side of food packaging, provided they are applied under the relevant Good Manufacturing Practices (GMP) and according to the information in this Technical Data Sheet. The printer, converter and packer/filler have the legal responsibility to ensure that the finished article is fit for the intended purpose and that the ink and coating components do not migrate into the food at levels that exceed legal and industry requirements.



THE RANGE

• PROCESS COLOURS

Colours	Reference numbers	IWS (1)	Alcohol	Solvent	Alkali
UV Process yellow	70-300396-2	5	5	5	5
UV Fast Process magenta	70-800781-0	6	5	5	5
UV Process cyan	70-110621-3	7	5	5	5
UV Process black	70-900246-3	7	5	5	5

• MIXING SYSTEM

Colours	Reference numbers	IWS (1)	Alcohol	Solvent	Alkali
UV Yellow	71-300460-4	5	5	5	5
UV Orange 021	71-700172-1	5	5	5	5
UV Warm red	71-805862-1	5	4	3	5
UV Red 032	71-800900-4	7	5	4	5
UV Rubine red	71-800899-8	5	5	5	3
UV Fast Rubine red	71-800901-2	5	5	5	5
UV Rhodamine red	71-800898-0	7	5	5	5
UV Fast Purple	71-100221-2	7	5	5	5
UV Violet	71-100219-6	7	5	5	5
UV Blue 072	71-110772-2	7	5	5	5
UV Fast reflex blue	71-110782-1	7	5	5	5
UV Process blue	71-110765-6	8	5	5	5
UV Green	71-500297-8	8	5	5	5
UV Neutral black	71-900310-5	7	5	5	5
UV Opaque white	71-010226-0	8	5	5	5
UV Transp. white	71-000201-5	/	5	5	5

(1) These light fastness values refer to a solid tone printing. Light fastness decreases when colour strength is reduced or if colours are intermixed.