

SolarFlex® Low Migration Metallics Part of the SOLARIS® System

1. Description

SolarFlex® Low Migration Metallic Inks is a range of high performance single-pack UV flexo metallic inks offering the narrow web printer the option to print food packaging or pharmaceutical packaging where a risk from migration has been identified. The products are in the customer validation phase of a development project.

2. Product Features*

- Low migration potential and very low odour.
- Formulated without photoinitiators with a propensity to migrate such as ITX, Benzophenone etc.
- Fast cure speed to ensure full cure at the highest press speeds
- High coverage and excellent gloss
- Good printability for high print quality
- Formulated without VOC's.
- Manufactured only from substances listed in Annex 1 and Annex 6 of the Swiss Packaging Inks Ordinance**
- Meets Nestlé*** criteria for the production of their packaging

3. Product Suitability*

3.1 Applications

SolarFlex® Low Migration Metallic Inks are intended for use in the following areas:

- Primary food packaging, pharmaceutical packaging or other sensitive applications.
- Suitable grades of paper or top-coated plastic self-adhesive labels.
- Other paper or board applications requiring low migration potential.
- Can be over-varnished to improve gloss, physical and chemical resistance properties.

SolarFlex® Low Migration Metallic Inks are **not** suitable for use in the following areas:

- Uncoated Thermal papers.
- Direct food contact.
 - Printers should assure themselves that any use of these products on food packaging has been fully assessed for risk and meets the required regulatory requirements for its intended use.

SolarFlex® Low Migration Metallic Inks should not be used for other end uses without prior discussion with your local Sun Chemical representative

*Please refer to your local Sun Chemical representative for specific details.

** Ordinance of the Federal Department of Home Affairs (FDHA) on Materials and Articles (817.023.21) Section 8b:Packaging Inks (Annex 6 revision 25.11.09)

*** Nestlé - Guidance Note on Packaging Inks 02-02-2012



3.2 Substrates

SolarFlex® Low Migration Metallic Inks are suitable for most grades of label stocks commonly used in the Narrow Web industry. Corona treatment is recommended for non-top-coated plastic substrates to ensure an optimum treatment level of 38-44 Dynes/cm but preliminary tests should always be conducted prior to producing commercial print. With significant variation between different grades of substrates, the printer should take any specific advice from the substrate manufacturer and make any necessary tests under realistic conditions before commercial printing.

3.3 Print Finishing

SolarFlex® Low Migration Metallic Inks can be over-varnished to improve gloss, physical and chemical resistance properties and are suitable for hot foil stamping.

4. Safety, Health and Environment

SolarFlex® Low Migration Metallic Inks should be used in accordance with normal standards of industrial hygiene. Please refer to the information provided on product labels and relevant Safety Data Sheets. For more details on handling of UV materials please refer to EuPIA's latest document – 'Guidelines for Printers on the Safe Use of Energy Curing Printing Inks and Related Products'.

SolarFlex® Low Migration Metallic Inks are made using Good Manufacturing Practice and in accordance with the latest EuPIA Guidelines on Printing Inks Applied to the Non-Food Contact Surface of Food Packaging Materials and Articles. (See www.eupia.org for details)

4.1 Storage

SolarFlex® Low Migration Metallic Inks are supplied in 5 Kg black plastic buckets with spouts. Shelf life is at least 6 months from date of manufacture in their original containers when stored between 5° and 25°C and protected from direct sunlight but may remain useable for longer periods. Inks should be stirred gently before use.

4.2 Waste Disposal

Care should be exercised in the disposal of printing ink waste. This should be carried out in accordance with good industrial practice, observing all the appropriate local regulations and guidelines. For more specific handling advice refer to the Safety Data Sheet (SDS).

5. Printing Conditions

5.1 Printing Viscosities

SolarFlex® Low Migration Metallic Inks are supplied press-ready and should not need adjusting under normal conditions whether using open-pan or chamber configurations.

5.2 Additives

A number of low migration press-side additives are available for non-standard conditions or applications.

5.3 Wash Up

A variety of proprietary wash-up solutions are available which are suitable for use with UV inks and press components such as flexo plates and pipes. Please contact Sun Chemical technical services or your Sun Chemical representative for recommendations and advice.



5.4 Plates and Rollers

SolarFlex® Low Migration Metallic Inks are suitable for use with UV compatible photopolymer plates commonly used in the industry. All rollers, tubes, sealants etc. must also be resistant to UV materials.

6. End-Use Safety / Assumptions

Acceptable technical performance of **SolarFlex® Low Migration Metallic Inks** is dependent on:

- Control of film weight.
- A clean working environment.
- Standard products are not mixed with **SolarFlex® Low Migration Metallic Inks**.
- Adequate curing on press to ensure that the print is fully cured before conversion.
- Appropriate packaging design and structure.
- Control of any migratable substances within the finished packaging structure.

Choice and control of film weight, curing and substrate are printer technical requirements for which the Sun Chemical technical team can provide assistance if required.

To fulfill its responsibility within the supply chain Sun Chemical will provide information regarding potential migratable components, where present in its inks, if required.

For further information on Low migration printing, please refer to Sun Chemical's Best Practice Guide, **DESIGNING PACKAGING WITH CERTAINTY**.

Code	Description	Shade	Container
DFR0064	UV Flexo LM Rich Gold	Rich Gold	5Kg Plastic Tub
DFR0065	UV Flexo LM Rich Pale Gold	Rich Pale Gold	5Kg Plastic Tub
DFR0066	UV Flexo LM Pale Gold	Pale Gold	5Kg Plastic Tub
DFR0067	UV Flexo LM Silver	Silver	5 Kg Plastic Tub

Please see www.sunchemical.com for further information on Sun Chemical products and services and contact your local Sun Chemical representative for specific product advice.

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