

SunCure® Lazer

UV Curable Ink system for printing Business Forms,
Direct Mail and Continuous Stationery

1. Description

SunCure® Lazer is a highly robust UV curable offset ink system designed for the printing of business forms, direct mail, continuous stationery, lottery blanks and pari-mutuel tickets.

2. Product Features

Sheetfed and web offset printable, with robust lithographic properties
Process, ISO12647.2 capable Process Colours and Pantone® colour range*
Fast curing inks to ensure full cure at the highest press speeds
Low misting properties, even at high speed
Excellent dot gain and trapping properties for high print quality, including reversed out print
Low impression roller marking once the web is turned
High speed and temperature second impression laser imprintable

3. Product Suitability

3.1 Applications

SunCure® Lazer inks are intended for use in the following areas:

- Business Forms
- Direct Mail, catalogues and advertising materials
- Continuous stationery
- Lottery blanks
- Pari Mutuel tickets
- Selected non-food label applications

SunCure® Lazer inks are **not** suitable for use in the following areas:

- Food packaging applications
- Microwave or ovenable applications
- Direct food contact.
- Printing on plastics and non-absorbent substrates
- Hot /cold foil stamping, with or without coating

Whilst **SunCure® Lazer** inks are versatile in performance, they may not be suitable if used outside the applications defined above. If in doubt, please check suitability with your local Sun Chemical representative.

* Pantone® is the registered trademark of Pantone Inc.

working for you.



3.2 Substrates

SunCure® Lazer inks are suitable for use on a wide range of paper substrates, as used in the forms and direct mail industry, including matte-coated and uncoated materials. Please note that there is significant variation between different grades of substrates. The printer should follow specific advice from their substrate manufacturer and make any tests necessary to prove performance under realistic conditions before commencing with commercial printing.

3.3 Print Finishing

SunCure® Lazer inks can be coated to improve gloss, physical and chemical resistance properties, but specific products are required. A range of **SunCure®** coatings is available for use with these inks, to provide a wide variety of finishes, including gloss, satin, matt and special effects.

Please contact your Sun Chemical customer technical service representative for specific information.

4. Safety, Health and Environment

4.1 Product Handling

SunCure® Lazer inks should be used in accordance with normal standards of industrial hygiene and good working practice. Please refer to the product Safety Data Sheet for specific information.

4.2 Manufacturing and Materials

SunCure® Lazer inks are made using Good Manufacturing Practice in accordance with the latest EuPIA Guidelines on Printing Inks (See www.eupia.org for details)

4.3 Storage

SunCure® Lazer inks are supplied in 3 kg black plastic buckets. Shelf life is at least two years from date of manufacture, when stored in original containers between 5° and 25°C and protected from direct sunlight. The inks may remain useable for longer periods, but once they have reached this age should be checked before use. If in doubt, please contact your Sun Chemical representative for advice. Inks returned from press that have not been contaminated in any way should be re-used within three months.

4.4 Waste Disposal

Printing inks, coatings and printing residues should be disposed of in accordance with Local, EU and National regulations. Please refer to the product Safety Data Sheet for additional information.

5. Printing Conditions

5.1 Printing Conditions

SunCure® Lazer inks are supplied press-ready and should not need adjusting under normal printing conditions. The press and roller system should be thoroughly cleaned to avoid cross-contamination from products previously used or printability and cure properties may be affected.



5.2 Additives

A number of press-side additives are available for adjusting properties in non-standard printing 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, including rollers, blankets and plates.

5.4 Fountain Solutions

Depending on press type and substrate, a number of **SunFount™** fountain solution additives are available for use with these inks, to provide optimum emulsification and printing properties. These inks are usually run with low or no alcohol founts and SunFount™ 480 and 485 are proven products for most applications

Please contact Sun Chemical customer technical services or your Sun Chemical representative for consumables advice and recommendation.

6. End-Use Safety / Assumptions

Acceptable technical performance of **SunCure® Lazer** inks is dependent on:

- The application of Good Manufacturing Practice.
- A press that is fitted for UV printing, including suitable rollers, blankets and plates.
- Control of film weight and print density.
- Adequate curing capacity on-press to ensure that the print is fully cured before conversion.
- Selection of substrates that are suitable for printing with UV curable inks.

Choice and control of film weight, curing and substrate are printer technical requirements for which Sun Chemical cannot accept responsibility.

These inks have been specifically designed to have high heat resistance, to accommodate use with the latest generation of laser printers. It is important to understand the technical requirements of the particular non-impact printer to be used for second impression printing as some operate at temperatures well in excess of 200°C and at high operating pressures. We strongly advise a test printing before proceeding with a commercial run. Additionally, not all pigments are suitable for laser imprinting, especially at high temperatures, and use of inks containing fully resistant special colours may be necessary. For advice and product recommendation or in case of doubt, please consult your local Sun Chemical Customer Technical Service team.

Minimum ink filmweight is recommended for work intended for laser imprinting and, where possible, the format should correspond to that recommended by the particular laser machine manufacturer. General advice is to limit ink coverage to no more than 50%, and to avoid vertical lines of print in the machine direction in the area where second impression printing is intended. The desired properties can only be achieved if the print is fully cured and printing is conducted in a clean working environment and with good working practices. The inks should not be mixed with other products, as their properties will be compromised.

Due to their fugitive nature, some colours are specifically NOT recommended for laser imprinting. Please refer to the table of performance properties and reference notes overleaf.



Product	Code	Lightfastness** Full Strength	Alcohol**	Alkali**	Laser Imprintability
Process Yellow	ULR26	5	+	+	+
Process Magenta	ULR27	4	+	-	+
Process Cyan	ULR25	7	+	+	+
Black	ULR46	7	+	+	+
1 st Unit Yellow (Opaque)	ULR28	5	+	+	+
PSO Yellow	ULR02	5	+	+	+
PSO Magenta	ULR04	4	+	-	+
PSO Cyan	ULR07	7	+	+	+
Pantone® Yellow	ULR15	4	+	+	+
Pantone® Orange 021	ULR21	5	+	+	+
Pantone® Warm Red	ULR31	3	+	-	+
Pantone® Red 032	ULR32	6	+	+	#
Pantone® Rubine	ULR42	5	+	-	+
Pantone® Rhodamine	ULR55	4	-	-	#
Pantone® Purple	ULR51	4	-	-	#
Pantone® Violet	ULR52	4	-	-	#
Pantone® Reflex Blue	ULR61	4	-	-	#
ResistantBlue 072	ULR60	7	+	+	+
Pantone® Process Blue	ULR17	7	+	+	+
Pantone® Green	ULR71	7	+	+	+
Pantone® Black	ULR50	7	+	+	+
Transparent White	ULR48	-	+	+	+
Opaque White	ULR84	-	+	+	+
Intense Black	ULR76	7	+	+	+
Resistant Reflex Blue	ULR73	7	+	+	+
Intense Yellow	ULR30	4	+	+	+
Intense Red	ULR33	5	+	+	+

Not recommended for laser imprinting, care should be taken is laser printing these colours which are present in the range to complete the Pantone® colour range. These inks are widely used in applications where laser imprinting is not required.

Please Note – The resistance properties of blends may differ from the basic colours, especially in tints and wet conditions. If a resistant blend is required, please contact your Sun Chemical customer technical service representative for best product combination recommendations.

Black inks should not be printed above an intensity of 1.8, or incomplete cure with potential marking issues may result.

Lightfastness is measured according to Blue Wool Scale. Under wet conditions such as during external exposure lightfastness is significantly worse for certain colours. Please consult your Sun Chemical representative for recommendation on alternative shades or blend formulations.

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**Test methods available on request

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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