

## SunCure® Display

UV Curable Ink system for poster, display and point-of-purchase display printing

### 1. Description

**SunCure® Display** is a highly robust UV curable offset ink system designed for use on large format lithographic presses for printing Posters, Point of Purchase and Display items on paper, board and plastic substrates.

### 2. Product Features

- Designed for use on large format sheetfed offset presses
- Robust lithographic properties
- Limited colour range consisting of mainly resistant colours
- Adhesion to a wide range of paper, board and synthetic substrates
- Fast curing inks to ensure full cure at the highest press speeds
- Designed for make-ready on paper/board before moving to more expensive substrates such as plastic
- Excellent dot gain and trapping properties for high print quality, including reversed out print
- Suitable for in-line or off-line coating

### 3. Product Suitability

#### 3.1 Applications

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

- Paper and board, corrugated board for poster and display applications
- Display and point of purchase plastics
- Self-cling plastics
- These inks also find some use for printing of non-food non-absorbent packaging, e.g liquor cartons and cosmetic boxes

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

- Food packaging applications
- Microwave or ovenable applications
- Direct food contact.

Whilst **SunCure® Display** 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.

working for you.



### 3.2 Substrates

**SunCure® Display** inks are suitable for use on carton and display board and a wide range of non-absorbent substrates. Corona treatment is recommended for non-top-coated plastic substrates to ensure an optimum treatment level of 38-44 mNm<sup>-1</sup>. Note: 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® Display** inks can be coated to improve gloss, physical and chemical resistance properties. A range of **SunCure®** coatings is available for use with the inks, to provide a wide variety of finishes, including gloss, satin, matt and special effects. Printed material produced with these inks is suitable for hot and cold-foil stamping, with or without an appropriate coating. Note: there are many types of foil, which require specific application conditions. Testing is recommended to establish optimum foiling conditions, before proceeding with a commercial run.

**SunCure® Display** printed materials can be successfully laminated in-line or off-line using solventless adhesives, using standard processes.

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

## 4. Safety, Health and Environment

### 4.1 Product Handling

**SunCure® Display** 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® Display** inks are made using Good Manufacturing Practice in accordance with the latest EuPIA Guidelines on selection of materials for use in printing inks (See [www.eupia.org](http://www.eupia.org) for details)

### 4.3 Storage

**SunCure® Display** 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 advice.



## 5. Printing Conditions

### 5.1 Printing Conditions

**SunCure® Display** 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 adhesion 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. Additives should not be used in excess of the recommended limit or other problems may result.

### 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 recommendations.

## 6. End-Use Safety / Assumptions

Acceptable technical performance of **SunCure® Display** 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
- Ink selection that is appropriate for the intended end use, considering such factors as long-term daylight and outdoor exposure

Depending on choice of measuring device, the process colours within the SunCure Display range are designed for use at the following optical densities:

- Yellow 0.9-1.1, Magenta 1.3-1.4, Cyan 1.35-1.45, Black 1.6-1.8. Dark colours and especially black should not be printed at an optical density above 2.0 or poor cure, adhesion and film properties may result.

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



## SunCure® Display

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Product	Product Code	Light fastness** Full Strength	Alcohol**	Alkali**
Process Yellow	SunCure® Display USD26	5	+	+
Process Magenta	SunCure® Display USD27	4	+	+
Process Cyan	SunCure® Display USD25	7	+	+
Process Black	SunCure® Display USD46	7	+	+
Resistant Yellow	SunCure® Display USD54	7	+	+
Resistant Magenta	SunCure® Display USD44	7	+	+
Orange 021	SunCure® Display USD21	4	-	+
Resistant Warm Red	SunCure® Display USD35	6	+	+
Resistant Pink	SunCure® Display USD56	7	+	+
Resistant Violet	SunCure® Display USD53	7	+	+
Resistant Reflex Blue	SunCure® Display USD63	7	+	+
Green	SunCure® Display USD71	7	+	+
Untoned Black	SunCure® Display USD50	8	+	+
Non-Yellowing Trans.	SunCure® Display USD49		+	+
Opaque White	SunCure® Display USD84		+	+
Hi-Adhesion White	SunCure® Display USD47		+	+

- FM6 base colours can be blended from the above inks, contact your Sun Chemical® Customer Technical Service team for advice.

## PSO Process Colours

Product	Product Code	Lightfastness** Full Strength	Alcohol**	Alkali**
Resistant Yellow	SunCure® Display USD70	6	+	+
Resistant Magenta	SunCure® Display USD68	6	+	+
Resistant Cyan	SunCure® Display USD64	7	+	+
Resistant Black	SunCure® Display USD78	7	+	+

SunCure® Display PSO colours can meet the requirements of ISO 12647:2 when used with appropriate reprographics and substrates.

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 our technical services for recommendation on alternative shades or blend formulations.

\*\*Test methods available on request

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Please see [www.sunchemical.com](http://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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