SolarCat™

Part of the SOLARIS® System

1. Description

SolarCat™ is a range of Cationic UV flexo inks intended for printing of labels, tags, sleeves, tickets and other applications found in the narrow web market where high levels of adhesion and resistance properties are required.

2. Product Features*

- Viscosity optimised for press performance.
- Cure speeds in excess of 250 m/m achieved.
- Less sensitivity to atmospheric humidity than 'conventional' cationic technology.
- Lowest odour during cure and on-print.
- Secure adhesion to most synthetic and metallic substrates found in narrow web.
- For shrink sleeves, shrinkage up to 80 achieved.
- High levels of product resistance, including perfumes, weathering, retort etc
- Based on unique technology subject to patent applications by Sun Chemical.

3. Product Suitability*

3.1 Applications

SolarCat™ inks are intended for use in the following areas:

- Paper or grades of top-coated plastic self-adhesive labels.
- Shrink sleeves and other film applications where high levels of adhesion are required.
- Labels and substrates designed for resistance to retort or weathering.
- Applications where high levels of product resistance are required. E.g. perfumes.

SolarCat™ inks are **not** suitable for use in the following areas:

- Uncoated Thermal papers.
- Primary food packaging unless there is an effective functional barrier.
    - Plastic packaging and bottles will not usually provide an effective barrier to migration.
    - Printers should assure themselves that use of these products on food packaging has been fully assessed for risk and the finished printed product meets all relevant regulatory requirements.
    - Typically, the use of specifically formulated Low Migration (LM) products will be required.

SolarCat™ 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.

working for you.

3.2 Substrates

SolarCat™ 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

SolarCat™ inks can be over-varnished with cationic products to improve gloss, physical and chemical resistance properties and are suitable for hot foil stamping when used in conjunction with the appropriate blockable overprint varnish.

SolarCat™ inks will accept some types of VIP (Variable Information Printing) but great care should be taken when producing print for subsequent VIP due to the wide variety of processes and materials available.

* Please refer to your local SunChemical representative for specific details.

4. Safety, Health and Environment

SolarCat™ 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'.

4.1 Storage

SolarCat™ inks are supplied in 5 Kg tamper-evident black plastic buckets with spouts or 25 Kg stackable black plastic cans. Shelf life is at least 12 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.

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). All materials that have come into contact with uncured SolarCat inks should be segregated from other waste and disposed of separately. Please also refer to our SOLARCAT™ Cationic UV Flexo Application Guide for details.

5. Printing Conditions

5.1 Printing Viscosities

SolarCat™ inks are supplied press-ready and should not need adjusting under normal conditions whether using open-pan or chamber configurations.

5.2 Additives

A range of press-side additives is available for non-standard conditions or applications.

5.3 Wash Up

Please see our SOLARCAT™ Cationic UV Flexo Application Guide for important advice on the specific requirements of cleaning press components before using cationic technologies.

5.4 Plates and Rollers

SolarCat™ inks are suitable for use with Cationic-compatible photopolymer plates commonly used in the industry. All rollers, tubes, sealants etc. must also be resistant to Cationic UV materials.

6. End-Use Safety / Assumptions

Acceptable technical performance of **SolarCat™** inks is dependent on:

- The required wash-up procedure has been used when switching to cationic technology.
- Control of anilox / film weight.
- Adequate curing on press to ensure that the print is dry before conversion.
- Full checks having been made to ensure the printed material meets customer specifications.
- The understanding that high atmospheric relative humidity can reduce the efficiency of the cationic UV cure process which can lead to a loss of press speed.

SolarCat™ is not intended to be used in applications where low migration is an end-use requirement. There are materials within the ink formulation which have the potential to migrate under certain conditions. If a label, sleeve or tag etc. forms part of a food package, it is the responsibility of the converter and food packer to ensure that migration does not exceed any permitted regulatory limitations.

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.

working for you.

SolarCat™

Part of the SOLARIS® System

	Code	Description	Lightfastness	Alkali	Alcohol
4-colour process	SCT26	PROCESS YELLOW[3]	5	+	+
	SCT27	PROCESS MAGENTA[3]	5 [1]	-	+
	SCT25	PROCESS CYAN	7	+	+
	SCT46	PROCESS BLACK	7	+	+
Standard Blend Colours	SCT93	GS YELLOW	6	+	+
	SCT54	HI PERFORMANCE YELLOW	6	+	+
	SCT06	ORANGE	4	+	+
	SCT32	RESISTANT RED	6	+	+
	SCT43	RESISTANT PROCESS MAGENTA[3]	6	-	+
	SCT44	HI PERFORMANCE RED	6-7	+	+
	SCT56	RESISTANT RHODAMINE[2]	7	+	+
	SCT64	RESISTANT VIOLET[2]	6-7	+	+
	SCT63	RESISTANT REFLEX[2]	6-7	+	+
	SCT71	GREEN	7	+	+
	SCT50	UNTONED BLACK	8	+	+
Additional Colours	SCT48	TRANSPARENT WHITE	N/A	N/A	N/A
	SCT45	OPAQUE WHITE	7	+	+
	SCT85	OPAQUE BACKING WHITE	7	+	+
Additional Products	SCT003	RELEASE VARNISH	N/A	N/A	N/A
	SCT007	LAMINATION ADHESIVE	N/A	N/A	N/A
	18HC124	OVERPRINT VARNISH	N/A	N/A	N/A

[1] Lightfastness under wet conditions, such as during external exposure is significantly worse for certain colours. Please consult our technical services for recommendation of alternative shades.
[2] Resistant colours are may differ slightly in shade from the equivalent non resistant colour.
[3] Colours may not be suitable for retort or applications involving high temperatures and humidity.

SunChemical®
a member of the DIC group
Sun Chemical Europe
Wexham Springs
Framewood Road
Slough, SL3 6PJ
United Kingdom
Tel + 44 (0)203 139 0000
Fax + 44 (0)203 139 0001
www.sunchemical.com