

SunOne™ BE Heatset Series 45

Inks for Heatset Printing

1. Description

SunOne™ BE Heatset Series 45 is a mineral oil, varnish, and flush based process ink series intended for use in the Heatset-Offset Printing industry onto paper substrates and is compliant to DE-UZ 195 (Blauer Engel für Druckerzeugnisse). It meets the deinkability requirements of DE-UZ 237 for paper grammages of 42g/m² or higher.

2. Product features*

SunOne™ BE Heatset Series 45 inks:

- Intended for printing on high speed Heatset presses.
- Have good lithographic properties.
- Print well on a wide range of both coated and uncoated papers.
- Give high gloss.
- Have fast heat-setting and drying properties.
- Have good print properties.
- Have a paste consistency with medium to high body.
- Have medium tack for this type of application with good overall properties.
- The series is not specifically recommended for matt-coated papers; it will often give suitable results but other ink series within the Sun Chemical range are more suitable.

*Specific application performance data, where available can be provided by your Sun Chemical representative.

3. Product Suitability*

3.1 Applications

3.1. Applications

SunOne™ BE Heatset Series 45 inks are intended for use in the following areas:

- Heatset – Offset printing of magazines, catalogues, brochures, advertising flyers, and direct mail.

SunOne™ BE Heatset Series 45 inks should not be used for other end uses without prior discussion with your local Sun Chemical representative.

SunOne™ BE Heatset Series 45 are **not** suitable for:

- Direct food contact
- Inserts for food packages (unless protected by a functional barrier)

SunOne™ BE Heatset Series 45 are **not** suitable for:

- Food packaging

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



3.2 Substrate

SunOne™ BE Heatset Series 45 inks may be used with the following paper substrates:

Paper Substrates
Medium Weight Coated
Light Weight Coated
Machine Finished Coated
Super Calendered
Machine Finished Special news

SunOne™ BE Heatset Series 45 inks may be used with some types of the following substrates:

Paper Substrates
Wood Free Coated
Wood Free Uncoated
Improved Newsprint
Newsprint

[N.B. Information given here is for indication of potential uses only.]

3.3 Adhesives

SunOne™ BE Heatset Series 45 printed films may have a number of suitable solvent-based and solvent-less adhesives applied to them. The actual bond strengths achieved will depend greatly on the choice of substrate, adhesive, applied film weights of both inks and adhesive, suitable drying conditions of the print and the nature of the product being adhered to them. It is recommended that rigorous tests are carried out before commencing any commercial trials and all ink / substrate specifications are tested against appropriate regulatory standards and test methods. Sun Chemical can provide assistance to confirm suitability.

4. Colour Range

SunOne™ BE Heatset Series 45 is a 4-colour Process set.

5. General Handling

5.1 Storage

SunOne™ BE Heatset Series 45 inks should be stored in a dry well-ventilated place.
 Temperature of storage: from 15°C to 25°C
 Shelf life: 12 months under the above conditions but Sun Chemical encourages a fast turnaround of containers to avoid changes to the product structure that may have a negative effect on print quality and product application over a longer time period. As an ink ages its rheological properties will move away from the manufacturing QC specifications.

5.2 Bulk Tanks

We have found that after long periods of usage there can be serious contamination with bulk ink tanks. This can be in the form of foreign objects and aged ink that has dramatically changed in structure and may have oxidised. Sun Chemical will not be held liable for any damage caused by contamination of the bulk tanks.

The filters installed between the pumps and bulk tanks must be inspected and changed when necessary prior to the first filling with Sun Chemical's inks. Once installed filters should be checked and changed if necessary every 6 months or sooner if recommended by the manufacturer.



5.3 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 regulations and guidelines.

For more specific handling advice refer to the Safety Data Sheet (SDS).

6. Printing Conditions

6.1 Printing Viscosities

SunOne™ BE Heatset Series 45 Inks are supplied ready for use.

6.2 Wash up solvents

There are a range of Petroleum based wash up solvents that can be supplied by Sun Chemical consumables.

6.3 Plates

SunOne™ BE Heatset Series 45 inks are suitable for all types of plates for the Heatset – Offset industry.

7. End-use safety

SunOne™ BE Heatset Series 45 printing inks are formulated in accordance with the EuPIA Exclusion policy for printing inks and related products. In particular, this excludes from use all materials classified according to the CLP Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures as carcinogenic, mutagenic or toxic for reproduction in categories 1A or 1B with hazard statements H340, H350 or H360, in addition to toxic or highly toxic materials with hazard statements H300, H301*, H310, H311*, H330, H331, H370 or H372* (* may be permitted if safe use can be demonstrated following risk assessment). Pigments based on compounds of Sb, As, Cd, Cr (VI), Pb, Hg, Se, certain dyes, solvents, plasticisers and miscellaneous materials are also excluded.

Acceptable technical performance of SunOne™ BE Heatset Series 45 inks is dependent on:

- Control of suitable ink weights/densities and damper settings
- Selection and dosage of appropriate fountain solution and water type
- Adequate drying on press (to ensure that the print is dry before conversion)
- Control of suitable silicone emulsion application at the post Dryer stage
- Suitable adhesive used in accordance with supplier recommendations

The choice and control of substrate, design (including coverage and film weight), process conditions (e.g. to ensure proper drying) and any materials from other suppliers are printer or converter technical requirements. Sun Chemical's technical team can provide assistance in the form of suggestions or direct support for our products.

8. Disclaimers

SunOne™ BE Heatset Series 45 has **not** been tested in food packaging applications and is **not** recommended for this purpose.

This list of applications, substrates and processes provided in this document is not exhaustive. Please contact your local Sun Chemical representative for full technical evaluation of your application or process.



9. Technical Assistance / Contacts

For further information, please contact your local Sun Chemical team.

Website: <http://www.sunchemical.com>

Our Products are intended for sale to professional users. The information herein is general information designed to assist customers in determining the suitability of our products for their applications. All recommendations are made without guarantee, since the application and conditions of use are beyond our control. We recommend that customers satisfy themselves that each product meets their requirements in all respects before commencing a print run. There is no implied warranty of merchantability or fitness for purpose of the product or products described herein. In no event shall Sun Chemical be liable for damages of any nature arising out of the use or reliance upon this information. Modifications of the product for reasons of improvements might be made without further notice.

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