

XZ80 Series Notation Inks

From the XZ80 family of Single Pack Thermal Notation Inks

1. Description

These single pack, ready to use, thermal curing legend inks have a wide range of applications and have been specifically developed to display a variety of important properties. These include excellent printability, good adhesion, hardness, resistance to scuffing, heat resistance and resistance to the many types of solvents which flood the board during processing.

This Technical Information Leaflet (TIL) and the relevant Material Safety Data Sheet (MSDS) should be read carefully prior to using this product.

2. Product features

- RoHS & WEEE Directive Compliant
- Suitable for use on the soldered side of boards
- Resist all common flux removal systems using alcohols or halogenated hydrocarbons
- Single pack thermal curing board marking / legend inks are available in the following colours:
 - XZ81 White
 - XZ83 Yellow
 - XZ85 Non-conducting Black



3. Product Range

CESN5034	XZ81	Single Pack Thermal Legend Ink White	1.00 kg.
CESN5051	XZ81	Single Pack Thermal Legend Ink White	1.00 kg.
CESN5023	XZ83	Single Pack Thermal Legend Ink Yellow	1.00 kg.
CESN5033	XZ85	Single Pack Thermal Legend Ink Non-arcing Black	1.00 kg.
CDSN4004	XZ42	Retarder	5.00 L.
CDSN4008	XZ46	Screen Cleaner	5.00 L.



4. General Handling

4.1 Storage and Shipping

When stored in sealed containers, in a cool place (20°C / 68°F), away from sources of direct heat and sunlight, XZ80 Series Notation Inks have a shelf life of 18 months.

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 regulations and guidelines.

For more specific handling advice refer to the detailed Safety Data Sheet (SDS), supplied by your local Sun Chemical Circuits representative.

5. Application / Processing Conditions

5.1 Thinning

XZ80 Series inks are single pack products which are supplied ready for use. The minimum amount (up to 3%) of Retarder XZ42 may be added to suit printing conditions.

N.B. The product should be stirred well before use.

5.2 Pre-Clean

When printing over base laminate material, it is essential that the surface is free from oil and grease. Any contamination should be removed with organic solvents. Certain grades of laminate have very smooth surfaces and light brushing may be required to improve adhesion.

5.3 Application

These inks are suitable for use on hand, semi-automatic or fully automatic screen presses.

Photographic stencils, a synthetic mesh of 100-120 threads/cm. (255 - 305T/inch) and a polyurethane squeegee are recommended.

All screens must be cleaned and thoroughly dried before use and be free from residues of screen cleaner and ink residues.

5.4 Washing Up

Screen Cleaner XZ46 is recommended for washing up.

Alternative cleaners and screenwashes are available to suit customers' particular requirements. Your local Sun Chemical Circuits representative will be pleased to advise on product selection.

These curing inks are extremely difficult to remove after stoving. It is therefore advisable to check boards carefully for misprints etc. before stoving, at which stage the inks can be removed with XZ46.

5.5 Curing

These inks should be stoved for 30 - 60 minutes at 140 - 150°C (284 - 302°F) in air convection ovens.

For infra-red ovens, stoving at 160°C (320°F) for 5 - 10 minutes should be sufficient.



5.6 Resistance

A fully cured board marking ink will resist most mass soldering techniques, flux removal systems and all general solvents used in board manufacture.

Please note that the XZ80 Series Inks are not recommended for nickel gold, immersion tin or silver plating processes. Tests should be run to determine suitability prior to production.

Insulation Resistance

IPC SM840E

1 x 10¹⁰ Ohms.

6. Health and safety

Detailed safety data sheets will be supplied by your local Sun Chemical Circuit's representative.

The products detailed hereon have been tested in accordance with, and meet the requirements of, the RoHS Directive 2002/96/EC and 2011/65/EU, and the European Directive 2003/11/EC, regarding the presence of the metals - Pb (Lead / Lead compounds), Hexavalent Chromium, Cd (Cadmium), Hg (Mercury), and Poly Brominated Flame Retardants.

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II – Europe.

As the world's foremost producer of inks, pigments and colour technology, Sun Chemical is leading our industry in developing and producing products which minimise our impact – and our customers' impact – on the environment and striving to maximise the use of renewable resources. We consider it our responsibility to be involved in the communities in which we live and work and to offer direction in meeting today's needs without compromising the ability of future generations to meet theirs.

7. Disclaimers

This information has been carefully compiled from experience gained in field conditions and extensive laboratory testing. However the products' performance and its' suitability for the customers' purpose depend on the particular conditions of use and the material being printed. We recommend that customers satisfy themselves that each product meets their requirements in all respects before commencing a production run. Since we cannot anticipate or control the conditions under which our products are used, it is impossible to guarantee their performance. All sales are also subject to our standard terms and conditions.

8. Technical Assistance / Contacts

Sun Chemical Circuits are an international company, and as such can offer technical, engineering and sales support to our customers worldwide.

For further information regarding this product, or any of our extensive range of materials for PCB fabrication, please contact your local Sun Chemical team or visit the Technical Help Desk at website: <http://www.sunchemicalhelpdesk.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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