

Technical Information Leaflet

XZ81 / 83 / 84 / 85

Single Pack Thermal Curing Notation Inks

PRODUCT REFERENCE

XZ81	Single Pack Legend Ink White	CESN5034
XZ81	Single Pack Legend Ink White	CESN5048
XZ81	Single Pack Legend Ink White	CESN5051
XZ83	Single Pack Legend Ink Yellow	CESN5023
XZ83	Single Pack Legend Ink Yellow	CESN5052
XZ84	Single Pack Legend Ink Black	CESN5031
XZ85	Single Pack Legend Ink Non-arcng Black	CESN5033

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ISO9001

ISO14001

RoHS & WEEE Directive Compliant

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.

These inks are suitable for use on the soldered side of boards, meet most specifications and 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
- XZ84 Black
- XZ85 Non-conducting Black

XZ84 Black may not be suitable where high currents are being carried, since it contains carbon and is therefore conductive. In such situations, the use of XZ85 Non-conducting Black, or one of the other colours is recommended.

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

2) MIXING AND THINNING

XZ8- 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 ink should be stirred well before use.

3) 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.

4) 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) 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 inks are curing systems and 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.

6) 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.

7) 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 XZ81 White is not suitable for nickel gold plating processes.

Insulation Resistance

IPC SM840C

1 x 10¹⁰ Ohms.

8) STORAGE AND SHIPPING

When stored in sealed containers, in a cool place (20°C / 68°F), away from sources of direct heat and sunlight, XZ8-Series Notation Inks have a shelf life of 18 months.

9) HEALTH AND SAFETY

Detailed material safety data sheets will be supplied by your local Sun Chemical Circuits representative.

The products detailed hereon have been tested in accordance with, and meet the requirements of, the RoHS Directive 2002/96/EC 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.

The materials detailed above are present below the specified maximum limits.

10) PACKAGING

XZ81	Single Pack Thermal Legend Ink White	1.00 kg.	CESN5034
XZ81	Single Pack Thermal Legend Ink White	1.00 kg.	CESN5051
XZ81	Single Pack Thermal Legend Ink White	0.50 kg.	CESN5048
XZ83	Single Pack Thermal Legend Ink Yellow	1.00 kg.	CESN5023
XZ83	Single Pack Thermal Legend Ink Yellow	1.00 kg.	CESN5052
XZ84	Single Pack Thermal Legend Ink Black	1.00 kg.	CESN5031
XZ85	Single Pack Thermal Legend Ink Non-arcng Black	1.00 kg.	CESN5033
XZ42	Retarder	5.00 L.	CDSN4004
XZ46	Cleaner	5.00 L.	CDSN4008

11) DISCLAIMER

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.

12) SUPPORT

Sun Chemical Circuits are an international company, and as such can offer technical, engineering and sales support to our customers worldwide. If you require more information regarding this product, or any of our extensive range of materials for PCB fabrication, please contact our local sales offices.