XZ06 Etch Resist

From the Sun Chemical family of Thermal Curing Etch Resists

1. Description

Although solvent soluble etch resists have largely been replaced by alkali soluble types, they are still preferred in some circumstances.

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
- Fully resistant to the common acidic and alkaline etchants used in printed circuit manufacture
- Screen printing resist of the traditional bitumen type but with the performance to meet modern production demands

ISO9001
FM 09568

ISO14001
EMS 40768

3. Product Range

SAP No.				
90158055	XZ06	Solvent Soluble Etch Resist Black	5.00 kg.	CGSN7004
90160152	XZ39	Fast Thinner	5.00 L.	CDSN4001
90160158	XZ89	Screen Cleaner	5.00 L.	CDSN4014

4. General Handling

4.1 Storage and Shipping

When stored in sealed containers, in a cool place (20ºC / 68ºF), away from sources of direct heat and sunlight, XZ06 has a shelf life of 1 year.

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

XZ06 is a single pack product which is supplied ready for use. The addition of Fast Thinner XZ39 up to a maximum of 5% w/w is recommended.

Note that over-reduction can result in poor image resolution and a low film weight which can result in film break down during the etching process.

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

5.2 Pre-Clean

The copper surface must be free from oil, grease or oxides. Brush cleaning is recommended before printing.

5.3 Application

XZ06 may be printed on hand, semi-automatic or fully automatic screen presses.

For best print definition, direct or capillary stencils, 90 - 110 T/cm. (230 - 280T/inch) metal or polyester mesh and hard rubber or polyurethane squeegees are recommended.

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

5.4 Washing Up

Screen Cleaner XZ89 or Fast Thinner XZ39 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.

5.5 Drying

XZ06 should be stoved for 1 - 2 minutes at 120°C (248°F) or 3 - 4 minutes at 80 - 90°C (176 - 194°F) in an infra red oven.

Bitumen based resists tend to be tacky when warm and boards should not, therefore, be stacked until they are cool.

XZ06 will air dry in 1 - 8 hours depending on the film thickness and print shop conditions.

Excess stoving must be avoided as this can make removal of the resist difficult.

5.6 Etching

The resist is fully resistant to the common acidic and alkaline etchants used in printed circuit manufacture.

Its effectiveness in other etchants should be tested prior to running production materials.

5.7 Stripping

XZ06 has very good solubility in a wide range of aliphatic, aromatic and halogenated hydrocarbon solvents. The use of such solvents has the advantage of avoiding the oxidation problems that sometimes make the removal of alkali soluble resists more difficult.

Inexpensive solvents such as paraffin and naphtha can be used as well as trichlorethane vapour.

XZ06 may also be stripped in Fast Thinner XZ39.

6. 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.

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

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