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## MULTICORE SOLDERS

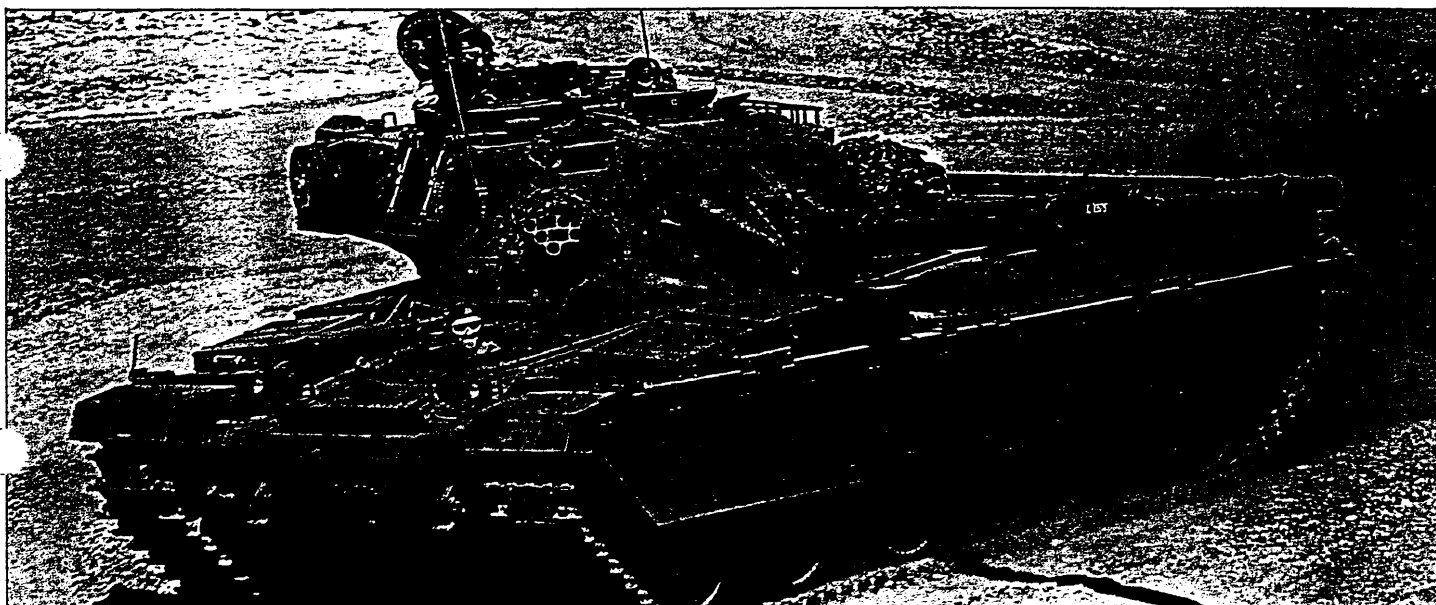
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419-620

# XERSIN<sup>Calme Zersin</sup> 2050 CONFORMAL COATING



## Protection at a fraction of the price:

Xersin 2050 is a one-part Conformal Coating. Part of the Xersin product range, it is applied to printed circuit boards after soldering to protect the circuits and joints from subsequent environmental attack.

Although its physical and chemical properties make Xersin 2050 a most efficient and convenient coating medium, it is its price advantages, compared with epoxy-based systems, that make it particularly attractive. Per litre, Xersin 2050 is less than 15% of the price of epoxy preparations, so considerable savings can be achieved.

### Complete protection

Whilst the use of Xersin Flux/Preservative affords post-soldering protection against atmospheric corrosion, areas of circuit board are inevitably left exposed. The application of Xersin 2050 Conformal Coating eliminates the risks of corrosion and current leakage associated with these unprotected areas.

Xersin 2050 provides a coating with the following three main benefits:—

1. It is fully compatible with the residues of Xersin Flux/Preservative, which need not be removed prior to the application of Xersin 2050.
2. Its high humidity-resistance ensures that the underlying circuitry is protected. In addition, the coating itself will neither discolour nor crack.
3. Should subsequent modifications or repairs be necessary, the coating can be readily soldered through.

### Ease of Application:

Xersin 2050 is supplied in a concentration suitable for immediate use. Coating required is 2 microns.

Xersin 2050 may simply be either sprayed or brushed over the entire board. Xersin 2070 Thinners are available if required.

Once coated, boards are dried either in a warm air draught or low temperature oven (60°C). Alternatively, they can be left to dry at ambient temperature, which will take about 45 minutes.

Brushes and spray equipment can be cleaned after use with PC.81 Multicore Solvent Cleaner.

## Performance Characteristics:

Xersin 2050 Conformal Coating meets the requirements of Def. Standard 59-47 Part I, Issue I and BS 5917:1980, Type AR, which are regarded as meeting similar performance requirements as to MIL-I-46058C.

Xersin 2050 cures by solvent evaporation and the resulting coating is thermoplastic with a softening point of 100°C apprx. Upper temperature limit is 125°C.

## When to Use:

The ease of application, elimination of removal of flux residues and the economy of Xersin 2050 make it the ideal conformal coating.

Xersin 2050 is also much safer to use than either epoxy or polyurethane systems.

The curing agents present in epoxy resin coatings may be clinically dangerous and special precautions should be taken in handling them. Polyurethane coatings are liable to decompose on heating, such as when replacing components. This decomposition may result in the liberation of toxic isocyanates.

NEITHER OF THESE HAZARDS ARE PRESENT WHEN USING XERSIN 2050.

## Properties and Relevant Specifications:

Specific Gravity at 20°C (68°F):

0.850

Solids Content W/W:

20%

Flash Point:

5°C (40°F)

Viscosity at 20°C (68°F):

10 cps

Electric strength:

26 kV/mm

(Method 201, BS 2782)

## Typical Test Results:

Test	Requirement BS 5917:1980	Values measured with Xersin 2050	Result
Insulation resistance: after coating		2.15 x 10 <sup>6</sup> Megohm	
after damp heat	10 <sup>4</sup> Megohm	3.4 x 10 <sup>5</sup> Megohm	Pass
Q-factor			
% change due to coating			
1 MHz	max. 9	2.6	Pass
50 MHz	max. 19	2.1	Pass
100 MHz	max. 9	6.5	Pass
% change due to water immersion			
1 MHz	max. 9	2.7	Pass
50 MHz	max. 5	2.1	Pass
100 MHz	max. 7	2.4	Pass
Repairability	Removable without damage to conductors		Pass
Flammability	Burning time greater than 10 seconds Burning limited to within 25 mins Shall not drip		Pass
Tackiness	No pick-up of paper fibres		Pass

## Packaging:

Supplied in 1 litre and 5 litre containers and 200 litre drums. (In U.S.A. 1 quart, 1 gallon, 2½ gallon and 55 gallon drums).

## Health & Safety:

Avoid skin contact. Inhalation of the solvent vapour and ingestion of the liquid may result in headache and dizziness. If the eyes are affected they should be washed thoroughly with water and medical attention should be obtained.

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