

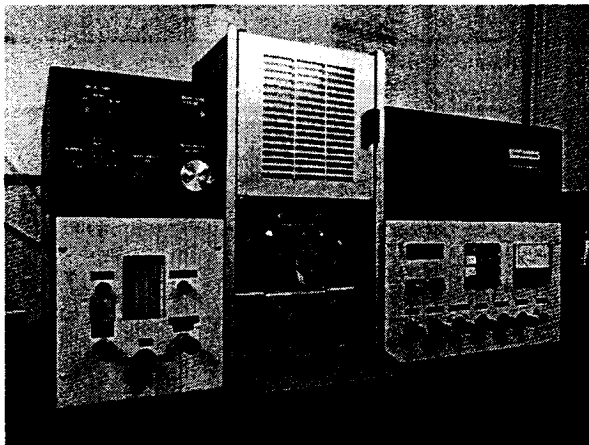


THE QUEEN'S AWARD FOR  
ENVIRONMENTAL ACHIEVEMENT



# EXTRUSOL<sup>®</sup>

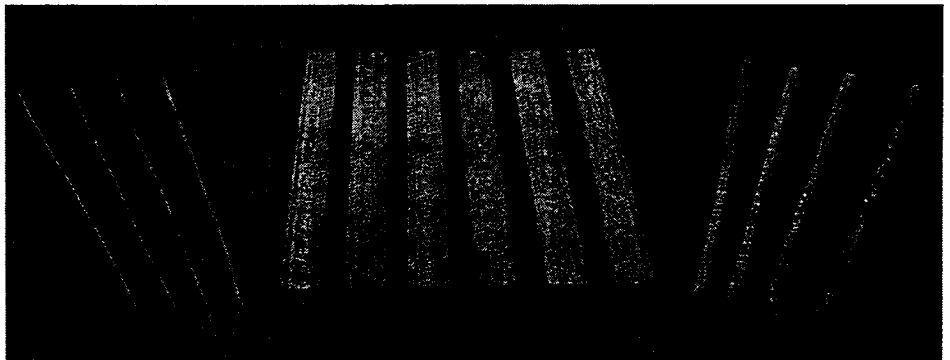
## BARS, STICKS, WIRE & PELLETS



### Free Analysis Service ▲

EXTRUSOL<sup>®</sup> solder is **EXTRUDED UNDER VACUUM** on unique new plant designed and built within our company. This provides **VACUUM-ALLOY PLUS** at no extra cost. Not only is the solder free from entrapped oxide which promotes dross formation and reduces the wetting of parts by solder but also the exterior surface is clean and free from all contamination and oxidation that is unavoidable in cast solders.

- High purity extruded solid solder for high performance soldering
- Alloys exceed the requirements of relevant international standards
- Low impurity levels increase the life of the solder in the bath



EXTRUSOL solders are manufactured by Multicore Solders only from the highest purity metals. We could save a considerable amount of money in a year by using lower purity metals for solder alloys which, when subsequently assayed, would meet the B.S.I., American, DIN or JIS standards for the respective alloys. However, our research has shown that many impurities present at levels permitted by these specifications reduce the mobility and wetting force of the molten solder thus reducing soldering speed, increasing the weight of solder used per joint and reducing the strength of the adhesion. It should be clear therefore that the cheapest solder per kg or lb conforming to a particular specification is not necessarily the most economical in terms of overall solder usage, productivity or reliability.

% Impurities permitted by major international specifications in tin/lead solders are shown below compared with typical analysis of EXTRUSOL tin/lead solder. Most popular alloys are 60/40 and 63/37 tin/lead.

Element	Chemical Symbol	U.K. BS.219 Grade KP max	U.S.A. ASTM Grade A max	Germany DIN 1707 max	Japan JIS Z-3282 max	EXTRUSOL Typical
Arsenic	As	0.03	0.02	0.02	0.03	0.001
Bismuth	Bi	0.10	0.25	0.25	0.05	0.01
Iron	Fe	0.02	0.02	0.02	0.03	0.002
Copper	Cu	0.08	0.08	0.08	0.05	0.002
Silver	Ag	No limit	No limit	No limit	No limit	0.002
Aluminium	Al	0.001	0.005	0.005 total	0.005	0.0001
Cadmium	Cd	0.005	No limit		No limit	<0.0005
Zinc	Zn	0.003	0.005		0.005	<0.0005
Antimony	Sb	0.20	0.12	0.12	0.30	0.02
Phosphorus	P	Not specified but deleterious				<0.0005
Sulphur	S					<0.0001
Oxide	O					<0.001
Total of all others (Gold, Indium, Nickel etc)		0.08	No limit	0.08	No limit	<0.005

EXTRUSOL solders are manufactured in a wide range of solder alloys (data sheet available).  
Alloys surpass B.S. 219, QQ-S-571E, ASTM, DIN and JIS specifications and are on the QPL of U.S. Fed. Spec. QQ-S-571E.  
Most popular is 63/37.

QUALITY CONTROL

Multicore has always aimed to supply products of guaranteed reliability. This cannot be achieved without process control and Q.C. testing.  
All EXTRUSOL solders are made with tested discrete batches of alloys. The batch number of the alloy appears on every bar and shipping carton. They also appear on a batch card included in every shipping carton which shows the personnel number of every person in our factory who handled the material through the various stages of its manufacture and packing. We keep retain samples of every batch of solder for a considerable period and test records for ever. If you have already used the solder and thrown away the packaging, our computer can identify the batch number if you can quote our invoice number and require further technical information.

SOLDER BATH ANALYSIS SERVICE

Unlike many competitors Multicore Solders provides a free analysis service for our bar solder customers to monitor impurities picked up from components dipped into the solder bath. Depending on the application our Laboratory Report will provide advice on whether any impurity has reached an unacceptable level. We are not a scrap metal company but we can, through our knowledge of the trade, often buy your contaminated solder and dross at more advantageous terms and dispose of it in bulk quantities with similar material purchased from our other customers.  
To take advantage of our Analysis Service it is necessary for a small sample to be taken by the correct method. Please ask for details of the Multicore Solder Bath Sampling Kit

SUPPLY FORMS (Approximate sizes)

Trapezium Bars	1 kg bars (with hole) Approx 16"×1"×½" (406×25×12.7mm) Packed 20kg per case  ½ kg bars Approx 8"×1"×½" (203×25×12.7mm) Packed 10kg per case
Oval Sticks	12"×½"×¼" (305×12×6mm) Packed 25kg (in USA : 50 lb) per case.
Round Sticks	12"×¼" diam. (305×6mm diam.) Packed 10kg (in USA : 20 lb) per case.
Solid Wire	⅛" diam. (3mm) for topping up solder baths and pots automatically with minimum loss of temperature. 10kg per reel (in USA : 20 lb) packed in individual carton.
Pellets	Supplied for the initial charge of a soldering machine to protect the elements from overheating. 10kg (in USA : 20 lb) per case.

HEALTH AND SAFETY

Comprehensive Health and Safety data sheets are available.



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