SOLDER FOR ELECTRONICS

Solder Paste

A complete range of solder creams formulated to meet the critical demands of micro-electronics production and all printed circuit applications.

Available in a wide range of alloys, particle sizes, viscosity and flux formulations to meet any type of fine electronics and industrial application.

NO-CLEAN, MINIMAL RESIDUES, EXCELLENT ACTIVITY, MEETS THE IPC STANDARDS

TYPES 410 - ORION 410 - SIRIUS 1
- Long stencil life
- Long abandon time
- Excellent tack life
- Can be reflowed in air or nitrogen
- Suitable for fine pitch and micro-BGA's. Very low solder balling

STANDARD RMA

TYPE 495
- Can be reflowed in air or nitrogen

STANDARD RA

TYPE ORION 410 RA-595
- Active formulation
- Can be reflowed in air or nitrogen

TYPE TITAN HT-12 / HT-10
- "Active" formulation
- Can be reflowed in air or nitrogen
- Temperature resistant

WATER-WASHABLE

TYPE WSP 150
- Can be reflowed in air or nitrogen

TYPE BLOWPIPE
- Plumbing application

PNEUMATIC DEPOSITION

TYPE 721-ORION 410 Di-SIRIUS 1 Di
- Deposit by syringe
- Inert residue
- Jars or syringes 20 g to 200 g
- Cartridges 500 g - 1 kg

ALLOYS
- Spherical alloy particles
- Totally oxide free
- Accurately controlled granular sizes
- Particles class 2 (45 – 75 µm) to class 5 (15 – 32 µm)
- Reflow range between 99°C and 300°C
- Lead free alloys

SUPPLIED IN CONTAINERS
- Jars from 500 g to 1000 g
- Cartridges of 1 kg
- Refill container of 2,5 kg
- Proflow® system cartridge

Flux gel

MOB 39 i

A gelatinous flux, application specific for BGA (Ball Grid Array) components but offering benefit in rework applications where sufficient solder is already present on the component.

Spread thinly at approximately 3 µm thick it will effectively flux any tinned surface without the problem of droplet volume control and with the added advantage leaving a minimal non-corrosive residue.

MOB 39 i : supplied in syringes of 5 g and 10 g.

Solder wires Fluidel 5®

Table of standard alloys

	GROUP	Designated main metal	MELTING POINT		Spec. Wt	Fields of use
			Solid	Liquid		
	**Alloys Sn Pb** FLUIDEL 5 NORMAL	Sn 63 Pb Sn 60 Pb Sn 50 Pb Sn 40 Pb	183° C 183° C 183° C 183° C	eutectic 190° C 215° C 235° C	8.4 8.5 8.9 9.3	Fine soldering on printed circuits. Soldering components in all electronic applications. Aerospace, Computers. Soldering of metal parts.
	**Alloys with copper** FLUIDEL 5 TRIMETAL	Sn 50 Pb Cu Sn 60 Pb Cu2	183° C 183° C	215° C 190° C	8.9 8.5	Solder for untinned copper wire, especially automotive wiring. Gives stronger joints and reduces leeching from copper circuits.
	Alloys with silver FLUIDEL 5 SILVER	Sn 60 Pb Ag 3 Sn 62 Pb Ag 2 Sn 63 Pb Ag	178° C 178° C 178° C	180° C 180° C eutectic	8.5 8.4 8.4	Solder for gold plated circuits, silvered ceramics or any silver plated application. Low Melting Point and high conductivity for SMT and re-work.
	**Alloys high temperature** FLUIDEL 5	Pb 90 Sn Pb 93.5 Sn Ag 1.5	270° C 296° C	300° C 301° C	10.6 10.9	High Melting Point solder for Lamps, Motors, Plumbing, etc. and where a more malleable alloy is required.
	Alloys low temperature FLUIDEL 5	Sn 50 Pb Cd 18 Sn 43 Pb Bi 14	145° C 138° C	eutectic 150° C	8.5 9.0	VLMP (Very low melting point) solder for juxtaposed joints on printed circuit cards or parts that are thermally sensitive.
	**Alloys without lead** FLUIDEL 5	Sn 95.5 Ag 3.8 Cu 0.7 Sn 96.5 Ag 3.5 Sn 100 Sn 97 Cu Sn 99.3 Cu 0.7	217°C 221°C 232°C 227°C 227°C	Eutectic Eutectic melting 320°C Eutectic	7.4 7.3 7.3 7.3 7.3	Lead-free solders in compliance with the food industry, plumbing, and lead-free electronic assembly. Higher mechanical strength with low electrical resistance for high quality solder joints.

Technical data sheets for each product are available on request. Fluidel 5® wire may be solid or cored with flux types : Rosinous, Hydrosoluble or Synthetic.

Sizes Ø : from 0,3 to 6 mm

Supplied on : spools from 100 g to 20 kg.
drums : 20 to 50 kg.

Incorporated flux

NO CLEAN (Halide free)	R45-RSNB-AO-R1	
NO CLEAN	A5 - A11	
SYNTHETIC (Rosin free)	S45V	
ROSIN-BASED (*)=Halide free	R (Pure Rosin)	RP*
	RMA (Rosin Mildly Activated)	EL* F45-CT2-RL RJ5
	RA (Rosin Activated)	CHV - CR - RD RJ 10
WATER-WASHABLE	OR (Organic)	Jarytin SR HC2
	IN (Inorganic)	HC3

Consult us for special requirements

Preforms

M.B.O. offers a wide range of preformed solder shapes for low cost automated assembly.

Preforms are available in many varieties :
- washers
- discs
- squares
- hexagons
- rectangles
- balls

Produced in all alloys with or without flux. Flux can be incorporated within or on the surface of the preform.
Preforms are best used for assemblies produced in quantity or in applications difficult to access with soldering irons or flow soldering techniques. Our technical department will calculate and recommend the best preform options for your specific application.

Areas of application where preforms can be of benefit :
- Connector pins and receptacles
- Condensers
- Fuses
- Springs to a fixed base

Our preform department will recommend and calculate for your best option.

Flux and Thinners

- A wide range of liquid fluxes are available for the soldering of high reliability electronics to the more difficult electrical and industrial applications.
- M.B.O.'s no-clean fluxes offer the highest reliability and are available in a range to enable superior soldering of tin-lead, bare copper, nickel gold, and lead-free finishes.
- Our formulations are designed to reduce solder defects, decreasing rework and increasing your production output.
- Environmentally friendly V.O.C. free no-clean fluxes are also available for traditional tin-lead soldering or lead-free.
- Please consult with our technical representative to assist you in choosing the best flux for your application requirements.

RESIN BASED RA
BC 340
TC410
19CA
▼
RESIN BASED RMA
BC 156
BC 310
BC 310-15
BC 310-35
BC 310-45
TC 320
TC 325

WATER WASHABLE
H 32 M
H 35 M
H 325 M
H 350 M
H 351 M

THINNERS
D 305 (for rosin base)
D 40S (for rosin free)
D 45 (for rosin free)

AQUEOUS
PR 102
PR 1022
PR 202

NO-CLEAN TYPE LOW-RESIDUE FLUX

Alcohol Based Resinous
BCX5M
▼
②
Alcohol Based Synthetic Rosin Free
MBO 45 D
40 S2
40 S2A
40 S2S
50 S2A
50 S2AM
UNIFLUX LSi ("dipping")
▼
③
Water Based
WBF 01/02
WBF 01DS

Machine alloys

M.B.O. alloys are :

- Manufactured using the highest purity base metals, only virgin materials are used.
- Produce in a rigorously controlled process to ensure the lowest oxide levels.
- Every bar and carton is marked with a traceable lot number.
- Impurities are well below international standards, insuring the quality of solder joints and the reliability of the assembled product.
- Chemical analysis of solder pot's content is available to quantity users.

RANGE INCLUDES ALLOYS FOR :

- All flow solder processes
- Solder Pots
- Automatic dipping machines

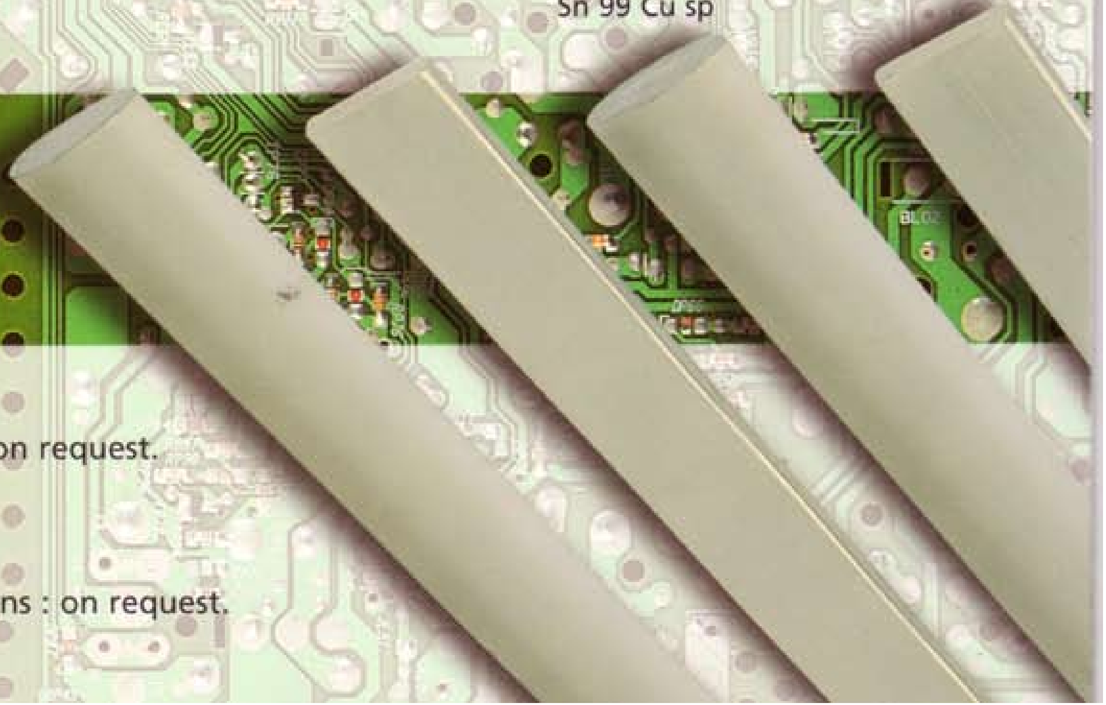
Alloy forms :

- Bars
- Sticks
- Granules
- Ingots

STANDARD ALLOYS :

- EXTRALLOY® : Sn 63 Pb - Sn 60 Pb - Sn 62 Pb Ag 2
  Sn 50 Pb Bi 3
- NITRALLOY® : Sn 63 Pb - Sn 63 G2 - Sn 60 Pb Bi
- CLEANALLOY® : Sn 63 Pb - Sn 63 G2 - Sn 60 Pb Bi
- Sn 60 HT - Sn 60 HTS
- LEAD_FREE ALLOYS : Sn 99.3 Cu 0.7 - Sn 96.5 Ag 3.5
  Sn 95.5 Ag 3.8 Cu 0.7
  Sn 96.5 Ag 3 Cu 0.5
  Sn 99 Cu sp

Anodes



ALLOYS :

- Sn 100
- Sn Pb

- specific : on request.

Forms :

- elliptical
- rectangular

- Dimensions : on request.

Services

ANALYSIS

- A full analysis service is available for determining the quality and content of customer's solder baths/reserviors.
- Measurements supplied in terms of :
  - metals by X-ray spectrography
  - chemicals by potentiometry, chromatography, spectroscopy and spectrometry

All our products can be supplied with Analysis or Certificate of Conformity

DEVELOPMENT ASSISTANCE

M.B.O. can assist you. With over 50 years of soldering technology experience and a vast process knowledge the MBO team is available to assist you with process optimization and product selection to reduce defects and increase your production yields. We offer you :

- Application engineering support
- Process audits and process optimization
- Research and development assistance
- Laboratory evaluations and chemical analysis studies.

Contact us for a free consultation and a customized proposal to address your company's specific process requirements and goals. Samples and technical information are available to you.

MBO quality

M.B.O. PRODUCTS meet the following standards :

- Alloys :
  NFC 90 550 - EN 29 453 - ISO 9453 - QQS 571 E - BS219
- Fluxes :
  EN 29 454 - ISO 9454
- J-Std specifications

Production control is in accordance with the internationally recognized standard ISO 9001:2000

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