FLUX

AND CHEMICAL PRODUCTS FOR ELECTRONIC SOLDERING

AIM offers liquid flux in RA, RMA, water soluble and no-clean formulations for all major board assembly technologies. There're also available Fluxes without VOC, either in water soluble and no clean format.

AIM fluxes are manufactured to rigorous ISO 9001 registered standards.

AIM liquid Flux users have the advantage of a shorter lead time during start-up, and less down-time once operating.

AIM FLUXES

The AIM fluxes typology offers a wide range of benefits for a variety of applications.

1. -AIM NO-CLEAN (No-clean fluxes)

263 Alcohol Base Flux, has an unique chemical content and a wide process window, that makes it an ideal option for the electronic assembly.

264-5 Alcohol Base Flux is a foaming flux that offers a wide range of process window and excellent thermal transfer. 3.5% of solid contents compatible with lead free alloys.

266-3 Alcohol Base Flux with excellent wetting, ultra-low residues and specially directed for spraying applications.

267 Alcohol Base Flux of fourth generation. It has only 1.1% solid contents which turn it into one of the fluxes with lower level of residues in the market.

270WR Water Based Flux VOC-Free Offers an excellent wetting, few residues and excellent results with low preheating.

272 Water Based Flux VOC-Free, suitable for foaming. No-clean flux with invisible residues. Lead-free alloys compatible.

273 Water Based Flux VOC-Free, with improved wetting ability and wide activation range. No clean flux with a 4.5% in solid contents.

Green Flux pens. Precise control in the flux deposition. Ideal for rework operations. This pen contains a major quantity of solids than the standard no clean fluxes.

Black Flux pens. With a very low percentage of residues.

2.- AIM WATER SOLUBLE LIQUID (Water soluble fluxes)

715M Alcohol based water soluble with neutral PH Flux. 24% of solid contents.

716 Alcohol based water soluble halide free Flux. 15.4% of solid contents.

730 Alcohol based water soluble Flux is a water based on inorganic flux that is very good for lead tinning & dip soldering, does not require preheating.

735 Alcohol based water soluble Flux, offers a wide window of process, excellent wetting and clean. Lead free alloys compatible. 23% solids content.

770 Alcohol based water soluble VOC free with neutral PH Flux. 9% of solid contents.

Red Flux Pens content 715M liquid flux.

3.- AIM RMA & RA (Liquid Fluxes at a Glance)

RMA202 offers good wetting and thermal transfer. Available in 15%, 25% and 35% of solids content.

RA301 ROSIN FLUX with great activity and high sustainability. Available in 15%, 25% and 35% of solid content.

BLUE FLUX PENS contain RMA202 flux.

1. AIM NO-CLEAN (No Clean Fluxes)

	Excellent Wetting	Recommended for Spraying	Recommended for Foaming	Very low residue	VOC-Free	Recommended for Rework	Reduce Solder Balling	Reduce Bridging
263		●	●	●				●
266-3	●	●		●			●	
264-5	●		●	●			●	
267	●	●		●				●
272			●	●	●			
273	●	●			●		●	
270WR	●	●		●	●		●	●
Black Pens				●		●		
Green Pens	●					●		

2. AIM WATER SOLUBLE LIQUID

	Excellent Wetting	Recommended for Spraying	Recommended for Foaming	Recommended for dipping & Lead Tinning	Halide-free	VOC-Free	Recommended for Rework	Excellent cleaning properties	Neutral pH
735	●	●	●					●	
715M	●		●					●	●
716	●	●	●		●				
770	●	●	●			●		●	
730	●			●				●	
Red Pens	●						●		●

3. AIM RMA & RA Liquid Fluxes At A Glance

	Excellent Wetting	Recommended for Spraying	Recommended for Foaming	Water cleaning residues	Recommended for Rework
RMA202	●	●	●	●	
RA301	●	●	●	●	
BLUE PENS	●			●	●

AIM WIRE

AIM cored wire uses a high purity alloy made from AIM Electropure TM solder. The wire comes in a variety of chemistries and flux percentages.

No-clean core has an activity level similar to most RMAs, but it leaves a clear residue. The residue has an SIR (surface insulation resistance) value of 1.5 x 1010 ohm. The residue is soluble if cleaning is necessary.

Water Soluble Core: AIM's water soluble core offers excellent wetting, leading to bright and shiny joints, and is designed to be used in a wide variety of electronic operations where cleaning is necessary.

R, RMA and RA Core: all meet IPC-J standards 004 and 006. The fluxes are all soluble, causing low smoke. The core is completely free of voids.

Lead free: AIM cored wire solder is offered in a patented lead-free alloy, trade named CASTIN®.

Flux Percentage: ranges from 1 to 4%. For most applications 2% is suggested, although 3% is very popular where extra flux is needed.

Dimension of Packages: Wire solder is available in diameters of .010 and greater. The most common sizes are .015 through .62. Standard packaging in 1 Lb., 5 Lb. and 25 Lb. spools. Other packaging available upon request.

The photo shows AIM no-clean cored wire aesthetics compared with a leading competitor's no-clean of similar activity. If cleaning is necessary, the residue soluble.

All AIM cored wire solders are guaranteed to have a continuous void-free flux core.

COMMON SOLDERING ALLOYS	
ALLOY	FUSION POINT
In52/Sn48*	118 (eutectic)
Sn42/Bi58*	138 (eutectic)
Sn42/Bi57/Ag1*	138
Sn43/Pb43/Bi14*	144-163
Sn63/Pb37	183 (eutectic)
Sn62/Pb/36Ag2	179 (eutectic)
Sn96/Ag4*	221 (eutectic)
CASTIN®*	217
SAC305 (Sn/Ag/Cu)*	217-218
TSC-4 (Sn/Ag/Cu)*	217-218
Au80/Sn20*	280 (eutectic)

* Lead-free alloys. Other alloys availables

AIM water soluble and no-clean cores have no noticeable odor. They wet and spread as well as rosin cored solders.

AIM Electropure solder is also available in lead-free alloys, including CASTIN® and SAC305.

AVAILABLE DIAMETERS						
	0,25 mm	0,5 mm	0,7 mm	1 mm	1,5 mm	2 mm
Sn60/Pb40 (1) (3)	N/A	U/R	U/R	•	•	•
Sn63/Pb37 (1) (2)	•	•	•	•	•	•
Sn99,3/Cu0,7 (1)(3)N/D	U/R	U/R	•	•	•	•
SAC LOW (2)	•	•	•	•	•	•
SAC 305 (2)	•	•	•	•	•	•

N/A: Not Available
U/R: Under Request
(1): Rosin core
(2): AIM Wire with Flux core "NC"
(3): Different available models

Standard alloys and diameters: Solid wire available in any type of alloy or diameter.

AIM ELECTROPURE SOLDER BAR

AIM solder bar processed by our own method to reduce the dissolved oxides to a minimum. The result is a lower number of defects per board using either no-clean or water soluble flux technology.

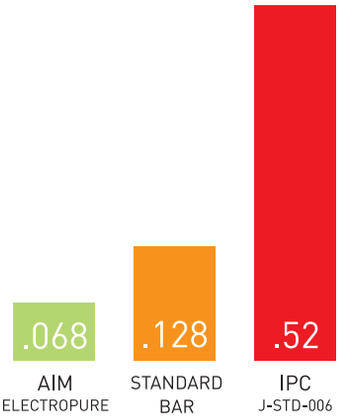
The ISO 9001 AIM registered manufacturing facilities has a Quality Systems Control that guarantee your wave soldering reliability.

AIM solder bar is made Orly from the finest quality pure tin and lead, this is called Electropure because its high purity and its low post-process residues. It's available in 1kg and 5kg for all kind of alloys.

AIM Electropure TM solder bar is also available in lead free alloys.

STANDARD SOLDER BAR FORMATS					
	0,5 kg (2)	1 kg	3,5 kg (1)	5 kg (1)	20 kg
Sn60/Pb40	•	•	•	•	•
Sn63/Pb37	•	•	•	•	•
Sn99,3/Cu0,7	•	•	•	•	•
SAC LOW	•	•	•	•	•
SAC 305	•	•	•	•	•

(1): Solder bars with hole for automatic feeding.
(2): Under request.



LEAD FREE SOLDERING

The most common alloys are:

Sac-305: (96.5 Sn, 3 Ag, 0.5 Cu): The most used on the market by board assemblers. It has a high mechanic resistance and good wetting. It works at 260 °C with 100-110 °C preheating.

Sac-Low Sn 99.15, Cu0.7, Ag 0.15: Lower cost, good wetting and resistance. Working temperature 280 °C. Commonly used in Europe. It's a good alternative for SAC 305.

Sn 99.3 Cu 0.7: Lower cost, fatigue resistance and less wetting than SAC 305, but acceptable. Working temperature 280°C, too. The most suitable for dipping application and HAL.

* These preforms are normally not available filled with flux.

			WELDING AVAILABLE FORMATS					
Alloy	Melting Point ° C	Comment	Solder paste	Solder bar	Cored wire	Solid wire	Solder Preforms	Solder spheres
In52 / Sn48	118	Alloy for low melting point. High cost due to high content of Indium. The corrosion, strength of the joints and fatigue problems should be taken into account.	YES	YES	NO	YES	SOME	NO
Sn42 / Bi58	138	Alloy for low melting point. The possible cracking and poor thermal fatigue should be taken into account.	YES	YES	NO	YES	SOME	YES
In97 / Ag3	143	Alloy for low melting point. High cost due to high content of Indium. The corrosion, strength of the joints and fatigue problems should be taken into account.	YES	YES	NO	YES	SOME	NO
Sn91 / Zn9	199	The high corrosion and oxidation in the Sn/Zn alloys should be taken into account. Requires special flux formulas.	NO	YES	NO	YES	SOME	YES
Castin® Sn / Ag2,5 / Cu7 / Sb0,5	217	It has a lower melting point and lower cost of the alloy of the Sn/Ag/Cu family. Demonstrated reliability. Compatibility with current material and existing processes.	YES	YES	YES	YES	SI	YES
SAC 305™	217-218	Similar to the CASTIN alloy but without the advantages provided by the decrease of melting temperature combined with the homogeneity and granulation of the metal structure.	YES	YES	YES	YES	YES	YES
Sn / Ag4 / Cu.5	217-218	Alternative Sn/Cu/Ag alloy. Similar characteristics to CASTIN with a slight increase of the melting point and cost.	YES	YES	YES	YES	SOME*	YES
Sn / Ag3,8 / Cu.7	217-218	Alternative Sn/Cu/Ag alloy. Similar characteristics to CASTIN with a slight increase of the melting point and cost.	YES	YES	YES	YES	SOME	YES
Sn / Ag3,2 / Cu.5	217-218	Alternative Sn/Cu/Ag alloy. Similar characteristics to CASTIN with a slight increase of the melting point and cost.	YES	YES	YES	YES	SOME	YES
Sn96,5 / Ag3,5	221	Long history in hybrid circuits and SMT industry. May lack the appropriate thermal and wetting reliability. Requires higher melting temperature of the alloys of the Sn/Cu/Ag family.	YES	YES	YES	YES	YES	YES
Sn96,5 / Ag5	221-240	Alloy for high temperature applications. High cost due to the Silver percentage.	YES	YES	YES	YES	YES	YES
Sn99,3 / Cu0,7	227	Alternative to the cost-effectiveness for wave and manual applications. The poor wetting should be taken into account.	YES	YES	YES	YES	YES	YES
Sn97 / Sb3	232-238	Alloy with similar properties to Sn95/Sb5.	YES	YES	YES	YES	YES	YES
Sn95 / Sb5	232-240	Alloy for high temperature applications. Poor wetting. Lower cost than Sn/Ag.	YES	YES	YES	YES	YES	YES
Au80 / Sn20	281	Alloy mainly used to solder Gold with Gold. High cost due to its high contents in	YES	YES	NO	YES	SOME	YES
Sn97 / Cu3	227-300	Alloy for high temperature applications.	YES	YES	YES	YES	YES	YES
Sn / Ag25 / Sb10	260-300	Alloy for high temperature applications. High cost.	YES	YES	YES	YES	YES	YES
Au88 / Ge12	356	Eutectic alloy for die joints.	YES	YES	NO	YES	SOME	YES

CRM SYNERGIES

RECAMBIOS · SPARE PARTS

FUJI - UNIVERSAL - PANASONIC - SIEMENS - TDK - CASIO - SANYO

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