TECHNICAL DATA SHEET

CATEGORY: **RESIN SUPER ACTIVATED CORED WIRE SOLDER***

NAME: **FastCore**

FEATURES

- LEAD-FREE COMPATIBLE
- PRODUCES BRIGHT & SHINY SOLDER JOINTS
- EXCELLENT WETTING PROPERTIES
- CLEAR, HARD RESIDUES

DESCRIPTION

FastCore is a resin-based flux cored wire solder designed to offer excellent wetting characteristics, bright and shiny solder joints, and lead-free compatibility. This product is very active and is recommended for fast cycle time soldering. FastCore flux promotes good thermal transfer, offering excellent solder penetration into plated through holes or surface mount interconnections. FastCore produces low-to-medium, clear post-process residues.

* FastCore offers low-corrosion, SIR-passing residues for most applications when used with contact soldering equipment such as a soldering iron. It is the decision of the user as to whether or not the cleaning of these residues is required. Applications should be verified prior to use to determine if cleaning is required. FastCore is not recommended for reflow applications, as the flux residue from these applications may be slightly corrosive and cleaning may be required. FastCore only passes corrosion testing when a modified IPC test is run using a contact soldering iron directly onto the wire solder.

HANDLING

- FastCore wire has an indefinite shelf life when proper storage conditions are observed.
- Store product in a clean dry area away from moisture and sunlight. Do not freeze this product.

APPLICATION

- Solder iron tip temperature should be 650° - 750°F for Sn63, Sn62 and Sn60 alloys, 700°-800°F for Sn/Ag, Sn/Ag/Cu, & Sn98.5/Cu1.5, 800-850°F for the Sn10/Pb90 alloy, and 650°-700°F for Sn43/Pb43/Bi14.
- Hold the solder iron at a 45° to 60° angle to the work surface.
- The solder iron should contact both the component lead and PCB pad surface.
- Solder and flux should flow onto both the lead and pad or lead and barrel to promote optimum flux activity to the joint being worked.

CLEANING

- It is the decision of the user as to whether or not the cleaning of residues is required.
- If post-process cleaning is required, it is easiest if performed within a two to three hour period.
- A temperature of 100º-150ºF normally is sufficient for removing residues. An in-line or other pressurized spray cleaning system is suggested, but is not required.

PACKAGING

- FastCore wire comes standard with a 2.5% flux core.
- FastCore wire is available in Sn60, Sn62, Sn63, Sn96, Sn/Ag/Cu, Sn99.3/Cu0.7, SN100C, Sn97/Cu3, Sn10/Pb90, AIMFREE, and other custom alloys upon request.
- Standard spool sizes: ½ lb. for .010 and .015 diameters; 1 lb. for .020, .032, .040, .050, and .062 diameters. Other spool sizes and wire diameters are available upon special request.
- Packaging of ½ lb. and 1 lb. spools is standard in 12 lb. and 24 lb. cases.

SAFETY

- Use with adequate ventilation and proper personal protective equipment.
- Refer to the accompanying **M**aterial **S**afety **D**ata **S**heet for any specific emergency information.
- Do not dispose of any waste materials in non-approved containers.

07.12.06

Manufacturing and Distribution Worldwide

Americas +1-401-463-5605 • Europe +44-1737-222-258 • Asia-Pacific +852-2649-7183 • info@aimsolder.com • www.aimsolder.com

PRODUCT TESTING RESULTS

CATEGORY: **CORED WIRE MEDIUM**

NAME: **FastCore**

Surface Insulation Resistance

Surface Insulation Resistance (SIR) test for cored wire flux was carried out according to J-STD-004 and IPC-TM-650 method 2.6.3.3.

Pass-Fail Criteria and Data Evaluation

Reference	Property	Pass-Fail Criteria	Result
IPC-TM-650 method 2.6.3.3. §5.5.1	Control coupons	>1E9 Ω at 96 and 168 h	**PASS**
J-STD-004 §3.2.4.5.1	Sample coupons	>1E8 Ω at 96 and 168 h	**PASS**
IPC-TM-650 method 2.6.3.3. §5.5.2	Post-test visual inspection	No dendrite growth or corrosion*	**PASS**

*modified corrosion test using contact soldering iron.

Conclusions

The result of the qualification test indicates that FastCore wire solder complies with the requirements of IPC TM-650, Method 2.6.3.3 for Surface Insulation Resistance.

Test Data

Control		Initial	24 hours	96 hours	168 hours
#1	A	1.00E+14	2.96E+10	2.36E+10	2.11E+10
	B	1.10E+14	2.91E+10	2.34E+10	2.12E+10
	C	2.51E+13	2.89E+10	2.39E+10	2.15E+10
	D	1.10E+14	1.74E+10	1.70E+10	1.63E+10
#2	A	1.00E+14	2.52E+10	1.78E+10	1.57E+10
	B	1.00E+14	2.27E+10	1.62E+10	1.49E+10
	C	5.03E+13	2.70E+10	1.92E+10	1.72E+10
	D	1.10E+14	2.65E+10	1.94E+10	1.73E+10
#3	A	1.00E+14	2.01E+10	1.57E+10	1.36E+10
	B	5.03E+13	1.83E+10	1.45E+10	1.22E+10
	C	1.00E+14	2.20E+10	1.88E+10	1.62E+10
	D	1.00E+14	2.35E+10	1.89E+10	1.64E+10
FastCore wire					
#1	A	1.00E+14	9.41E+08	8.60E+08	7.11E+08
	B	1.00E+14	6.15E+08	1.08E+09	9.87E+08
	C	1.10E+14	6.71E+08	8.97E+08	7.91E+08
	D	3.35E+13	8.94E+08	1.00E+09	7.80E+08
#2	A	1.00E+14	1.06E+09	7.71E+08	6.34E+08
	B	1.00E+14	9.46E+08	8.63E+08	5.78E+08
	C	1.00E+14	8.83E+08	1.17E+09	1.25E+09
	D	5.03E+13	7.90E+08	6.75E+08	5.34E+08
#3	A	1.00E+14	5.05E+08	4.54E+08	5.55E+08
	B	1.10E+14	5.71E+08	4.95E+08	4.37E+08
	C	1.10E+14	4.94E+08	5.88E+08	5.06E+08
	D	5.03E+13	4.95E+08	5.51E+08	5.70E+08