



TECHNICAL DATA SHEET

CATEGORY: **NO-CLEAN CORED WIRE SOLDER**
NAME: **GLOW CORE**

FEATURES

- EXCELLENT WETTING
- LEAD-FREE COMPATIBLE
- WIDE PROCESS WINDOW
- CLEANABLE WITH SAPONIFIER

DESCRIPTION

GLOW CORE is a no-clean, resin-based flux cored wire solder designed to offer excellent wetting characteristics and lead-free compatibility. This product is very active and is recommended for fast cycle time soldering. **GLOW CORE** flux promotes good thermal transfer, offering better solder penetration into plated through holes or surface mount interconnections. **GLOW CORE** cored wire produces low-to-medium post-process residues that are electrically safe and do not require cleaning for most applications.

HANDLING

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

APPLICATION

- Solder iron tip temperature should be between 650° - 750°F (350° - 400°C) for Sn63, Sn62 and Sn60 alloys, 700° - 800°F (370° - 425°C) for Sn/Ag and Sn/Ag/Cu (SAC305, CASTIN, TSC-4, etc.) alloys.
- Hold the solder iron tip 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 the lead and pad or lead and barrel to promote optimum flux activity for the joint being worked.
- If additional flux is needed, the use of AIM flux dispensing pens is recommended for dispensing precise amounts of flux to eliminate over-saturation.

CLEANING

GLOW CORE can be cleaned with saponified tap water or an alcohol and water blend. **AIMTERGE 520** is recommended. A water temperature of 140°F is recommended, and should be adequate for removing any post-process residues.

PACKAGING

- **GLOW CORE** is standard with a 2.5% flux core.
- **GLOW CORE** is available in Sn/Ag/Cu, CASTIN, SN100C, and other alloys upon request.
- Standard spool sizes: ½ lb. for .010 and .015 diameters, and 1lb. for .020, .032, .040, .050 and .062 diameters. Other diameters and spool sizes are available upon special request.
- Packaging of ½ lb. and 1 lb. spools is available in 12 lb. and 24 lb. cases.

SAFETY

- Use with adequate ventilation and proper personal protective equipment.
- Refer to the accompanying **Material Safety Data Sheet** for any specific emergency information.
- Do not dispose of any hazardous materials in non-approved containers.

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PRODUCT TESTING RESULTS

CATEGORY: **CORED WIRE MEDIUM**
 NAME: **GLOW CORE**

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

Conclusions

The result of the qualification test indicates that GLOW CORE 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	5.03E+13	8.03E+09	9.73E+09	8.78E+09
	B	5.03E+13	8.32E+09	9.92E+09	9.72E+09
	C	3.35E+13	9.21E+09	1.03E+10	1.02E+10
	D	3.35E+13	8.67E+09	1.13E+10	9.72E+09
#2	A	2.01E+13	8.23E+09	9.73E+09	9.06E+09
	B	2.51E+13	7.76E+09	9.51E+09	9.36E+09
	C	2.01E+13	8.87E+09	1.01E+10	9.67E+09
	D	2.51E+13	7.98E+09	1.05E+10	9.04E+09
#3	A	1.00E+14	1.48E+10	1.65E+10	1.62E+10
	B	3.35E+13	1.46E+10	1.71E+10	1.70E+10
	C	1.00E+14	1.45E+10	1.64E+10	1.62E+10
	D	5.03E+13	1.36E+10	1.70E+10	1.58E+10
Glow Core wire					
#1	A	1.00E+14	9.99E+08	1.47E+09	1.28E+09
	B	1.10E+14	1.09E+09	6.17E+08	5.19E+08
	C	1.00E+14	1.77E+09	2.17E+09	1.68E+09
	D	1.00E+14	1.09E+09	1.65E+09	1.31E+09
#2	A	1.10E+14	5.87E+08	2.90E+08	1.84E+08
	B	1.10E+14	1.53E+09	1.14E+09	1.01E+09
	C	1.00E+14	7.08E+08	8.46E+08	7.43E+08
	D	1.10E+14	4.55E+08	5.74E+08	5.88E+08
#3	A	1.00E+14	7.49E+08	3.46E+08	2.46E+08
	B	8.01E+13	9.03E+08	1.08E+09	9.24E+08
	C	1.10E+14	6.95E+08	6.42E+08	4.96E+08
	D	1.67E+13	7.72E+08	8.93E+08	7.36E+08

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