WS101 Power Core Wire Solder

Introduction

WS101 is a high activity water washable wire solder for soldering through-hole and surface mount assemblies. WS101 flux is formulated to wash away easily using D.I. water. WS101 is low smoking with a mild odor.

Attributes

- Excellent cosmetics.
- Superior activity offering good solderability on all surface finishes.
- Excellent washability using D.I. water.

Wire Solder Alloys	Diameters	Flux Content
SN100C	0.015 to 0.062 inches	2 to 3% wt
SAC305	0.020, 0.032, 0.062 inches	2% wt

Compatible Products

150N, 152N, 159HF liquid fluxes.
WS888, WS889, WS890 gel fluxes.
TTC100C tip tinner.

Storage and Handling

- Shelf life is 5 years when stored between 50 to 90 °F (10 and 32 °C) in a standard warehouse or office environment.
- Store inside of the original packaging to prevent contamination from dust or moisture.

Application

WS101 Power Core wire solder is suitable for use in any electronic hand soldering application. WS101 Power Core wire solder is ideal for difficult to solder metals such as brass, nickel and oxidized copper.

Parameter	Setting
Soldering iron temperature	370 - 425 °C (700 - 800 °F)
Angle	45 to 60 degrees to the surface

- These parameters are general guidelines. The optimum settings may be different depending upon the process, equipment, components and circuit boards.

Cleaning

After heating, WS101 flux residues must be removed from the circuit board. It is recommended to remove WS101 flux residues within 4 hours after soldering using D.I. water heated to 100 - 180 °F in

standard washing equipment. It is possible to wash away WS101 flux residues after multiple heat cycles followed by a 24 hour hold time, although this is not recommended.

Safety

Wear appropriate gloves and safety glasses when using wire solder. Avoid breathing fumes, especially during soldering. Follow the guidelines in the Safety Data Sheet (SDS).

J-STD-004C & J-STD-006C Standards	Test Method	Result
J-STD-004C classification	J-STD-004C methods	ORH1
Visual appearance	Visual	White waxy flux residue
Flux content	IPC 2.3.34.1	2.0 to 3.0% wt
Solder pool	IPC 2.4.49	Excellent spreading and wetting
Flux residue dryness	IPC 2.4.47	Tacky
Halide ion content (Br^-, Cl^-, F^-, I^-)	IPC 2.3.28.1	1.7 to 1.8% wt of solids
Halogen content (Br and Cl)	EN 14582, IPC 2.3.28.1	1.7 to 1.8% wt of solids
Halide by silver chromate	IPC 2.3.33	Halides detected
Fluoride by spot test	IPC 2.3.35.1	None detected
Copper mirror	IPC 2.3.32	High activity
Copper corrosion	IPC 2.6.15	Corrosion present
Surface Insulation Resistance (SIR)	IPC 2.6.3.7	Pass > 1.00E+09 ohms
Electro Chemical Migration (ECM)	IPC 2.6.14.1	Pass, increase of 0.99 Log_{10} ohms