

ALPHA[®] SMT CORE PLUS

Halogen Free, No-Clean Wire Solder

DESCRIPTION

ALPHA SMT Core Plus is a halogen-free, no-clean core wire solder for hand soldering or automatic feed wire applications. It provides good activity and wetting. The unique rosin and activator system provides soldering results comparable to fully activated core solders. **ALPHA SMT Core Plus** leaves optically clear, tack-free, non-corrosive residues.

READ ENTIRE TECHNICAL DATA SHEET BEFORE USING THIS PRODUCT

APPLICATION GUIDELINES

ALPHA SMT Core Plus is suitable for use in any commercial hand soldering application that does not utilize a cleaning process after soldering, where IPC-TM-650 2.6.3.3 flux is appropriate and/or compliance with Bellcore Specification TR-NWT-000078.

The activator system of ALPHA SMT Core Plus is extremely effective and promotes soldering to moderately tarnished surfaces of the following metals:

Beryllium Copper	Nickel (Copper)	Tin (Plate)
Brass	Silver Solder	
Bronze	Solder (Plate)	
Cadmium (Plate)	Solder (Hot Dip)	
Copper	Terne (Plate)	
Lead	Tin (Hot Dip)	

Residue Removal

It is intended that the small amount of residues of ALPHA SMT Core Plus be left on the board. Attempts to clean ALPHA SMT Core Plus generally produce unsatisfactory results.

Companion Touch-up Flux

ALPHA NR205 is recommended as a companion touch-up flux.

TECHNICAL DATA

Category	Results
Physical Properties	
Softening Point	96 °C (205 °F)
Rosin Grade	WW per Fed. Spec.LLL-R-626
Water Extract Resistivity	>13,500 Ohm-cm., typical
Corrosiveness	Passes Copper Mirror
Halide Content	Passes Silver Chromate Paper Test
Wetting Balance Test	Wetting times comparable to fully activated core solder fluxes
Surface Insulation Resistance	Passes IPC-TM-650 2.6.3.3, Meets Bellcore Spec. TR-NWT-000078
Core Flux IPC Classification per J-STD-004	ROL0
Alloy Specification	Meets Alpha's Vaculoy solder specification*
ISO 12224	1.1.3

* Please refer to Alpha's Vaculoy Technical Bulletin for specification. Alpha's Sn63 Vaculoy meets the requirements of J-STD-006.

AVAILABILITY

Alloy Description	Flux Loading	Wire Diameter
63Sn/37Pb	P1 and P2 (1.1% and 2.2% nominal)	0.010" to 0.125" (Spool Weight 1 and 5 Lbs.)
Vaculoy 96.5Sn/3.0Ag/0.5Cu *	P2 and P3 (2.2% and 3.3% nominal)	0.010" to 0.125" (Spool Weight 1 and 5 Lbs.)
Vaculoy SACX0307 *	P2 and P3 (2.2% and 3.3% nominal)	0.010" to 0.125" (Spool Weight 1 and 5 Lbs.)

* Lead-Free Alloy

RECYCLING SERVICES

We provide safe and efficient recycling services to help companies meet their environmental and legislative requirements and at the same time, maximize the value of their waste streams.

Our service collects solder dross, solder scrap, and various forms of solder paste waste. Please contact your local sales representative for recycling capabilities in your area or [link here](#).



SAFETY & WARNING

It is recommended that the company/operator read and review the Safety Data Sheets for the appropriate health and safety warnings before use. **Safety Data Sheets are available at MacdermidAlpha.com/assembly-solutions/knowledge-base.**

STORAGE

If >36 months from manufacture, please submit sample to Alpha for testing.

CONTACT INFORMATION

To confirm this document is the most recent version, please contact Assembly@MacDermidAlpha.com

www.macdermidalpha.com

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Also read carefully warning and safety information on the Safety Data Sheet. This data sheet contains technical information required for safe and economical operation of this product. READ IT THOROUGHLY PRIOR TO PRODUCT USE. Emergency safety directory assistance: US 1 202 464 2554, Europe + 44 1235 239 670, Asia + 65 3158 1074, Brazil 0800 707 7022 and 0800 172 020, Mexico 01800 002 1400 and (55) 5559 1588

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