

ALPHA[®] SMT CORE PLUS

HALOGEN FREE, NO-CLEAN WIRE SOLDER (per IPC-TM-650 2.6.3.3)

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.

FEATURES & BENEFITS

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 (Plate) | 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.

TECHNICAL DATA

| Physical Properties | Typical Values |
|--|--|
| 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 | ROLO |
| 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.

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COMPANION TOUCH-UP FLUX

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

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

SAFETY

ALPHA SMT Core Plus is not considered toxic; however, its use in typical soldering process will generate a small amount of decomposition and reaction product fumes. These fumes must be adequately exhausted for operator safety and comfort.

SHELF LIFE

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