

# ALPHA® ENERGIZED-PLUS RA WIRE SOLDER

## Type RA per QPL-571-28-89, Passes IPC-TM-650 2.6.3.3

### GENERAL DESCRIPTION

**ALPHA Energized-Plus** is the most effective RA MIL-SPEC rosin core solder yet developed for hand soldering. Similar in design to Energized core solder, Energized-Plus is more active still. It meets the full requirements of QPL listing for Federal Specification **QPL-571-28-89** for Type RA flux-core solder.

### USES

**ALPHA Energized-Plus** is suitable for use in any electronic hand-soldering application requiring compliance with Military Specifications for RA class fluxes. It is also suitable for those commercial electronic operations modeled after Military Specifications. Some of these include: computer, aerospace, telecommunications, automotive and entertainment industry applications.

The unique activator system of **ALPHA Energized-Plus** enables the flux to penetrate even heavily tarnished surfaces among the following metals:

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

### RESIDUE REMOVAL

In applications requiring cleaning, **ALPHA Energized-Plus** flux residues can be readily removed using either Alpha 564M, 565 or 1003 solvents, an aqueous saponifier cleaning process using Alpha 2110, or semi-aqueous cleaning using Bioact® EC-7.

### TECHNICAL SPECIFICATION

Physical Properties	Typical Values
Softening Point	71°C (160°F)
Rosin Grade	WW per Fed. Spec. LLL-R-626
Water Extract Resistivity	> 50,000 ohm-cm., per QQS-571F
Plasticizer	Very high boiling solvent; creates low smoke and older properties
Wetting Balance Test	Fastest recorded wetting time of all RA MIL-SPEC core solders
QPL Listing Number	571-27-89
J-STD-004	ROM1
ISO 12224	1.1.2

### AVAILABILITY

Alloy Description	Flux Loading	Wire Diameter
63Sn/37Pb	P2 and P3 (2.2% and 3.3% nominal)	.010" to .125" (Spool Weight 1, 5, 20 Lbs.)
60Sn/40Pb	P2 and P3 (2.2% and 3.3% nominal)	.010" to .125" (Spool Weight 1, 5, 20 Lbs.)
40Sn/60Pb	P2 and P3 (2.2% and 3.3% nominal)	.010" to .125" (Spool Weight 1, 5, 20 Lbs.)





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10Sn/88Pb/2Ag	P2 (2.2% nominal)	.010" to .125" (Spool Weight 1, 5, 20 Lbs.)
5Sn/93.5Pb/1.5Ag	P2 (2.2% nominal)	.010" to .125" (Spool Weight 1, 5, 20 Lbs.)
Vaculoy SACX0307 *	P2 and P3 (2.2% and 3.3% nominal)	.010" to .125" (Spool Weight 1, 5, 20 Lbs.)

\* Lead-Free Alloy

This material can also be made available in an alloy that is nominally 95% Sn and 5% Sb. Please contact your local CEAM representative to discuss flux, loading, diameter and minimum order quantities for this alloy.

**ALPHA Energized-Plus** is available in ESD approved plastic spooling per the DOD 2000 specification.

**HEALTH & SAFETY**

**ALPHA Energized-Plus** is not considered toxic, however, its use in typical soldering processes 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 Cookson Electronics Assembly Materials for testing.