AFCW Sn99.3/Cu0.7 Solder

ALUMINUM FLUX CORE WIRE SN99.3/CU0.7 SOLDER

- Aluminum Flux Core Wire (AFCW) Solder as Wire or Rod Solder
- Tin-Copper Based Solder For Direct Aluminum Soldering
- Strong Solder Bonds For Connecting Aluminum To Aluminum And Aluminum To Copper
- Does Not Require Plating Of Aluminum Before Soldering
- Residues From Soldering Completely Water Soluble
- Can be created from 0.010 inch (0.254 millimeter) diameter wire to a 0.3 inch (0.80 centimeter) diameter rod. Each rod is 14 Inches (35 centimeters) long.

DESCRIPTION

Superior AFCW Sn99.3/Cu0.7 Solder is a cored wire or rod solder designed for direct aluminum soldering applications. A eutectic solder formulation with an active aluminum flux core it permits direct soldering to aluminum surfaces without the need to use expensive plating techniques to prepare the aluminum surface for soldering. The specialty flux core created by Superior Flux will cut through the very tenacious oxides that are always present on aluminum alloy surfaces and will promote the spread of the solder alloy on metal surfaces.

APPLICATIONS

Superior AFCW Sn99.3/Cu0.7 Solder is useful for aluminum to aluminum and aluminum to copper connections. It also can be used for soldering copper to steel connections. The solder is best used by heating the base metal with radiant heat from a constant heat source such as a soldering iron, torch, or an induction source. The cored wire solder is then placed on the hot surface where it will melt and release the internal aluminum core flux which will attack the aluminum surface oxides and permit the solder to flow. Low temperature, diffuse heat torch soldering can be used afterwards, but intense torch heat will destroy the aluminum flux within the solder core.

Superior AFCW Sn99.3/Cu0.7 Solder will work on Aluminum Association alloys 1XXX, 2XXX, 3XXX, 5XXX, 6XXX, and certain 8XXX and 9XXX alloys. It will not work on 4XXX or 7XXX series aluminum.

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PHYSICAL PROPERTIES

Melting Point	227°C (441°F)
Solder Density	7.31 g/cm3
Shear Strength	27.0 MPa (3916 psi)
Recommended Part Temperature Range	250-315°C (482-600°F)
pH of 1% of Flux Core	7.20
Odor	Mild
Flash Point	None

RESIDUE PROPERTIES AND REMOVAL

The residues from the ***Superior AFCW Sn99.3/Cu0.7 Solder*** are slightly basic and completely water soluble and should be removed from electronic assemblies. They are best removed by immediately washing with warm water. To remove the water, rinse the surface with an alcohol rinse then dry the surface.

SAFETY PRECAUTIONS

This product, during handling or use, may be hazardous to health or the environment. Read the Material Safety Data Sheet and warning label before using this product.

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