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**PRODUCT: SILVALOY® A56T FLUX COATED ROD
(AWS BAg-7)**

COMPOSITION:

Silver	49.52 wt%
Copper	19.47 wt%
Zinc	15.03 wt%
Tin	4.42 wt%
Flux	11.56 wt%
Total other elements	0.15 wt% Max.

Flux Composition:

Potassium Bifluoride	10-30 wt%
Potassium Fluoroborate	5-20 wt%
Potassium Tetraborate	15-25 wt%
Potassium Fluoride	5-15 wt%
Boric Acid	25-40 wt%
Water	15-35 wt%

MATERIAL PROPERTIES:

Solidus	1145°F (618°C)
Liquidus	1205°F (652°C)
Brazing Range	1205°-1400°F (652-760°C)
Specific Gravity of braze metal	9.203
Density (Toz/cu in) of braze metal	4.850
Electrical Conductivity (% IACS)	11.9
Electrical Resistivity (Michroh-m-cm)	14.5
Color	White

DESCRIPTION:

SILVALOY A56T FC has the lowest brazing temperature, best wetting, and best flow of all the cadmium-free alloys. It has a slight plastic range which may be noticed during melting on some applications. Its low zinc content minimizes problems due to longer heating cycles (as in furnace brazing) or due to excessive heating (as by less skilled operators). For this reason, it is often preferred over **SILVALOY® 35**, **SILVALOY® 45**, or **SILVALOY® 50** for furnace brazing, or any brazing operation where the alloy is molten for an extended period of time.

The flux coating is a water base mixture consisting of potassium salts of fluorine and boron. The flux is extruded onto the rod and baked at precise time and temperature to impact sufficient bonding and hardness to the coating. Sufficient ductility remains in the coating to allow for



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generous bending of the rod to reach areas of difficult access. When the rod is placed into the torch flame, the flux will melt several hundred degrees before the alloy, flowing onto the work surface, and preparing the surface for the subsequent melting of the braze alloy.

APPLICATIONS:

Typical applications are the joining of ferrous, nonferrous, and dissimilar metals, with close joint clearances. It is often selected for use on silver or stainless steel due to its excellent color match. **SILVALOY A56T FC** is often used on nickel, nickel alloys, or stainless steel because it does not cause stress cracking as readily as the other low melting brazing filler metals. The fact that **SILVALOY A56T FC** contains no cadmium has led to its use on food handling equipment where cadmium may be considered a hazard and its use is prohibited by law.

SPECIFICATIONS:

AWS A5.8	BAG-7
ASME	BAG-7
QQ-B-654	BAG-7

PROPERTIES OF BRAZED JOINTS:

Generally, the joint strength using **SILVALOY A56T** flux coated rod will surpass the strengths of the base metals. Strength is a function of the base metals being joined, type of joint, design of joint, joint clearances and brazing procedures. The recommended maximum operating temperature for **SILVALOY A56T** braze alloy is up to 400°F in continuous service and up to 600°F in intermittent service. Where improved corrosion resistance is needed, **SILVALOY[®] A50N** flux coated maybe recommended.

SAFETY INFORMATION:

It is essential that adequate ventilation be provided so that personnel will not inhale gases and fumes while brazing. The operation and maintenance of brazing equipment or facility should conform to the provisions of American National Standard (ANSI) Z49.1, "Safety in Welding and Cutting". For more complete information, refer to the Material Safety Data Sheet for **SILVALOY A56T** flux coated rod.



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LIABILITY-DISCLAIMER:

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