



235 Kilvert Street
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ISO 9001:2008
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PRODUCT: **SILVALOY[®]A38T FC**
(AWS BAg-34)

COMPOSITION:

Silver	22.04 wt%
Copper	18.56 wt%
Zinc	16.24 wt%
Tin	1.16 wt%
Flux	~ 42.0 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	1200°F (649°C)
Liquidus	1330°F (721°C)
Brazing Range	1330-1550°F (721-843°C)
Specific Gravity	8.774
Density (toz/cu in)	4.624

DESCRIPTION:

The tin content in **SILVALOY[®]A38T FC** provides good wetting on many difficult to wet metals such as stainless steel and tungsten carbide. This alloy, being free of Pb or Cd is preferred for long heating cycles. The recommended maximum operating temperature for **SILVALOY A38T FC** is up to 400°F in continuous service and up to 600°F in intermittent service. The flux coating is a water base mixture consisting of potassium salts of fluorine and boron. 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 and alloys with close joint clearances. **SILVALOY A38T FC** is used for joining ferrous metals (stainless steel,



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Tungsten or molybdenum carbide), and nonferrous (copper, copper alloys, nickel, nickel alloys). The largest use of this alloy is for furnace brazing although it is also suitable for other brazing procedures.

SPECIFICATIONS:

AWS A5.8

BAg-34

AVAILABLE FORMS:

Standard forms of **SILVALOY A38T FC** are wire, strip and preforms.

PROPERTIES OF BRAZED JOINTS:

Generally, the joint strength when using **SILVALOY A38T FC** 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. Where improved corrosion resistance is needed **SILVALOY[®] 50N** and **SILVALOY[®] A40N2** are recommended over silver base filler metals not containing nickel.

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, Cutting). For more complete information, refer to the Material Safety Data Sheet for **SILVALOY A38T FC**.

LIABILITY-DISCLAIMER:

Wolverine Joining Technologies, LLC, seeks to represent reliable information concerning the composition, properties and use of its products. The technical information provided in this publication is provided at no charge and is without guarantee, warranty or responsibility of any kind, expressed or implied.

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