



235 Kilvert Street
Warwick, RI 02886

A World-Class Quality Partner
ISO 9001:2008
Registered

PRODUCT: SILVACOTE® A50N

NOMINAL COMPOSITION: (Wire)

Silver	45.25 ± 1.0%
Copper	18.10 ± 1.0%
Zinc	25.34 ± 1.0%
Nickel	1.81 ± 0.5%
Flux	9.5 +1.5/-1.0%
Total Other Elements	0.137% Max.

PHYSICAL CONSTANTS: (of Wire)

Solidus	1220°F (660°C)
Liquidus	1305°F (705°C)
Brazing Range	1310-1550°F (710-843°C)
Specific Gravity	8.98
Density (t.oz./cu in)	3.166
Electrical Conductivity (% IACS)	15.0
Electrical Resistivity (Microhm-cm)	11.75
Color (Flux Coating)	Brown

FLUX COATING:

The Flux Coating for **SILVACOTE® A50N** is a proprietary formulation consisting of:

- Potassium Bifluoride
- Potassium Fluoborate
- Boric Acid
- Potassium Tetraborate
- Boron
- Aliphatic Polycarbonate

DESCRIPTION:

SILVACOTE A50N is a cadmium free silver brazing alloy that has found numerous applications for joining 300 series stainless steels in the food, medical and dental fields. Addition of nickel to the silver-copper zinc alloy imparts corrosion properties which retards joint or interface corrosion of the brazed assembly. The nickel element in **SILVACOTE A50N** also improves the bond strength when joining of tungsten carbide cutting tips. **SILVACOTE A50N** is a suitable replacement to the cadmium containing BAg-3 alloy. Its low liquidus of 1305°F reduces surface oxidation and sensitization to stainless steels.



PRODUCT: SILVACOTE® A50N - CONTINUED

PROPERTIES OF BRAZED JOINTS:

Generally, the joint strength using **SILVACOTE A50N** 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 **SILVACOTE A50N** is up to 700°F (370°C).

APPLICATIONS:

Typical applications are the joining of 300 series stainless steels in the food, medical, and dental fields. A good replacement to **SILVACOTE A50N** in attaching carbides.

SPECIFICATIONS: (Wire)

AWS A5.8	BAG-24
ASME	BAG-24
SAE	AMS 4788

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 **SILVACOTE A50N**.

AVAILABLE FORMS:

Standard form of **SILVACOTE A50N** is wire.

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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