



235 Kilvert Street
Warwick, RI 02886

A World-Class Quality Partner
ISO 9001:2000
Certified

**PRODUCT: SILVACORE® A50N FLUX CORED
(AWS BAg-24)**

COMPOSITION:

Silver	42.5 wt%
Copper	17.0 wt%
Zinc	23.8 wt%
Nickel	1.7 wt%
Flux	15.0 wt%
Total Other Elements	0.15 wt% Max.

Flux Composition:

Potassium Bifluoride	26.0%
Potassium Fluoroborate	25.0%
Boric Acid	27.0%
Potassium Tetraborate	21.0%
Boron	1.0%

MATERIAL PROPERTIES:

Solidus	1220°F (660°C)
Liquidus	1305°F (705°C)
Brazing Range	1310-1550°F (710-843°C)
Specific Gravity	6.507
Density (toz/cu. in.)	3.429
Electrical Conductivity (% IACS)	15.0
Electrical Resistivity (Microhm-cm)	11.75
Color	Light Yellow

DESCRIPTION:

SILVACORE A50N Flux Cored is a cadmium free silver brazing alloy that can be used in numerous applications. Addition of nickel to the silver-copper zinc alloy imparts anti-corrosion properties, which retards joint or interface corrosion of the brazed assembly. The nickel element in **SILVACORE A50N** also improves the bond strength when joining of tungsten carbide cutting tips. **SILVACORE A50N** is a suitable replacement for the cadmium containing BAg-3 alloy. Its low liquidus of 1305°F reduces surface oxidation and sensitization to stainless steels. The flux coring is a non-hazardous, non-hygroscopic base mixture consisting of potassium salts of fluorine and boron. Sufficient ductility remains in the core to allow for generous bending of the wire to reach areas of difficult access. When the wire 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.

**PRODUCT: SILVACORE® A50N FLUX CORED - CONTINUED
(AWS BAg-24)**

APPLICATIONS:

Typical applications are the joining of 300 series stainless steels in the food, medical, and dental fields. A good replacement to **SILVALOY® 50N** in attaching tungsten or molybdenum carbides.

SPECIFICATIONS: Metal

AWS A5.8	BAg-24
ASME	BAg-24
AMS	4788

AVAILABLE FORMS:

Standard forms of **SILVACORE A50N FC** are wire and preforms.

PROPERTIES OF BRAZED JOINTS:

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

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 **SILVACORE A50N Flux Cored**.

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