

Brazelt A-50N (BAg-24)

Nominal Composition:	
Silver	50.00 ± 1.0%
Copper	20.0 ± 1.0%
Zinc	28.0 ± 2.0%
Nickel	2.0 ± 0.5 %
Total other Elements	0.15 % Max
Physical Constants:	
Solidus	1220°F (660°C)
Liquidus	1305°F (705°C)
Brazing Range	1310 - 1550°F (710-843°C)
Specific Gravity	8.98
Density (lb/cu in)	4.73
Electrical Conductivity (% IACS)	15.0
Electrical Resistivity (Michroh-m-cm)	11.75
Color	Light Yellow

DESCRIPTION:

Brazelt A-50N is a silver brazing alloy that has found numerous applications for joining 300 series stainless steels in the food, medical, and dental fields. The absence of cadmium in the alloy permits direct contact to food and for various medical or hospital applications. 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 Brazelt A-50N also improves the bond strength when joining of tungsten carbide cutting tips. Brazelt A-50N 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.

PROPERTIES OF BRAZED JOINTS:

Generally, the joint strength using Brazelt A-50N surpasses 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 temperatures for Brazelt A-50N is up to 700°F (370 C°).

APPLICATIONS:

Typical applications are the joining 300 series stainless steels in the food, medical, and dental fields. A good replacement to Brazelt 50N in attaching carbides.

SPECIFICATIONS:

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

SAFETY INFORMATION:

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 Brazelt A-50N.

AVAILABLE FORMS:

Standard forms of Brazelt A-50N are wire, strip and preforms.