

Brazelt 45(BAg-1)

Nominal Composition:	
Silver	45.00 ± 1.0%
Copper	15.0 ± 1.0%
Zinc	16.0 ± 2.0%
Cadmium	24.0 ± 1.0%
Total other Elements	0.15 % Max
Physical Constants:	
Solidus	1125°F (660°C)
Liquidus	1145°F (705°C)
Brazing Range	1145 - 1400°F (618-760°C)
Specific Gravity	9.34
Density (lb/cu in)	4.96
Electrical Conductivity (% IACS)	27.6
Electrical Resistivity (Michroh-m-cm)	6.06
Color	Light Yellow

DESCRIPTION:

Brazelt 45 is the lowest melting brazing alloy available composed of silver, copper, zinc, and cadmium. It is suitable for use on most metals except aluminum and magnesium. It is used for joining steel, stainless steel, copper, copper alloys, nickel, nickel alloys or combinations of these metals. It has wide acceptance by industrial users, as well as being included in Federal and military specifications on brazing filler metals or alloys. It has a narrow melting range which is not apparent in most brazing operations, making it flow freely through a capillary.

PROPERTIES OF BRAZED JOINTS:

Generally, the joint strength using Brazelt 45 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 45 is up to 400°F (continuous service) and 600°F (intermittent service). Where improved corrosion resistance is needed, Brazelt A-50N and Brazelt A-40N2 are recommended over silver base filler metals not containing nickel.

APPLICATIONS:

Typical applications are the joining ferrous, nonferrous and dissimilar metals and alloys with close joint clearances.

SPECIFICATIONS:

AWS A5-8	BAg-1
ASME	BAg-1
QQ-B-654	Grade VIII
AMS	4769
MIL-B-15345	Grade VIII

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 45 are wire, strip and preforms.