

Brazelt 25(BAg-27)

Nominal Composition:	
Silver	25.00 ± 1.0%
Copper	35.0 ± 1.0%
Zinc	26.0 ± 2.0%
Cadmium	13.5 ± 1.0%
Total other Elements	0.15 % Max
Physical Constants:	
Solidus	1125°F (607°C)
Liquidus	1375°F (710°C)
Brazing Range	1310 - 1550°F (710-843°C)
Specific Gravity	8.95
Density (lb/cu in)	4.71
Electrical Conductivity (% IACS)	29.7
Electrical Resistivity (Michroh-m-cm)	5.7
Color	Light Yellow

DESCRIPTION:

Brazelt 25 is a modification of Brazelt 30 with a further reduction in silver content resulting in a higher melting point and a longer melting range (250°F). Brazelt 25 is used for brazing steel, stainless steel, copper, copper alloys, nickel, nickel alloys or combinations of these metals. While its performance is similar to Brazelt 30, its broader melting range is helpful where clearances are not uniform. During melting, Brazelt 25 passes from a solid state to a mushy or plastic state and progressively to a liquid. If heated slowly through this plastic state (1125°-1375°F), the liquid portion may flow from the solid portion. This causes a separation of the alloy into a low-temperature melting (fluid) portion and a high-temperature melting (solid) portion. This phenomenon is called liquation. The high temperature melting portion will melt only above the normal brazing temperature of Brazelt 25. For this reason, Brazelt 25 should be heated rapidly through the melting range.

PROPERTIES OF BRAZED JOINTS:

Generally, the joint strength using Brazelt 25 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 25 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-27
ASME	BAg-27

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 25.

AVAILABLE FORMS:

Standard forms of Brazelt 25 are wire, strip and preforms.