

SILVALOY[®] 550
(BRAZE[™] 550, SILVALOY[®] A55T)

NOMINAL COMPOSITION

Silver	55.0% ± 1.0%
Copper	21.0% ± 1.0%
Zinc	22.0% ± 1.0%
Tin	2.0% ± 0.5%
Other Elements (Total)	0.15% Max

PHYSICAL PROPERTIES

Color	White
Melting Point (Solidus)	1166°F (630°C)
Flow Point (Liquidus)	1220°F (660°C)
Brazing Temperature Range	1220°F - 1400°F (660°C - 760°C)
Specific Gravity	9.14
Density (Troy oz/in ³)	4.81
Electrical Conductivity (%IACS) ⁽¹⁾	8.30
Electrical Resistivity (Microhm-cm)	20.8

⁽¹⁾ IACS = International Annealed Copper Standard

PRODUCT USES

Silvaloy 550 is a silver-base brazing filler metal used for ferrous and non-ferrous alloys in joints requiring a low temperature, cadmium-free material, as in food handling equipment. For improved corrosion resistance in joints on stainless steel use alloys containing small amounts of nickel, such as Silvaloy 630 or Silvaloy 505.

BRAZING CHARACTERISTICS

Silvaloy 550 is a low temperature, free-flowing brazing filler metal with a slight tendency to liquate (i.e. separate into low and high melting constituents) if heated slowly through its melting range.

PROPERTIES OF BRAZED JOINTS

The properties of a brazed joint are dependent upon numerous factors including base metal properties, joint design, metallurgical interaction between the base metal and the filler metal. Butt joints in the listed metals at room temperature indicate the following typical results:

	Tensile Strength (lbs/in ²)
Copper	25,000-30,000
Brass	30,000-40,000
Low Carbon Steel	40,000-50,000

AVAILABLE FORMS

Wire, strip, engineered preforms, specialty preforms per customer specification, powder and paste.

SPECIFICATIONS

Silvaloy 550 alloy conforms to the following specifications:

- ISO 17672: Ag 155
- British Standard: BSEN 1044: Ag 103

APPLICABLE PRODUCT CODE(S)

The applicable Lucas-Milhaupt product code(s) for this technical data sheet: 32-550, 35504.

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 Silvaloy 550.

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