

**SILVALOY<sup>®</sup> 255**  
**(BRAZE<sup>™</sup> 255, SILVALOY<sup>®</sup> A25T)**

***NOMINAL COMPOSITION***

---

Silver	25.0% ± 1.0%
Copper	40.0% ± 1.0%
Zinc	33.0% ± 2.0%
Tin	2.0% ± 0.5%
Other Elements (Total)	0.15% Max

***PHYSICAL PROPERTIES***

---

Color	Pale Yellow
Melting Point (Solidus)	1270°F (690°C)
Flow Point (Liquidus)	1435°F (780°C)
Brazing Temperature Range	1435°F - 1535°F (780°C - 835°C)
Specific Gravity	8.51
Density (Troy oz/in <sup>3</sup> )	4.49
Electrical Conductivity (%IACS) <sup>(1)</sup>	19.4
Electrical Resistivity (Microhm-cm)	9.00

<sup>(1)</sup> IACS = International Annealed Copper Standard

***PRODUCT USES***

---

The principal uses of this filler metal are for joining copper, brass, nickel-silver, bronze, steel and stainless steel.

***BRAZING CHARACTERISTICS***

---

Silvaloy 255 is a cadmium-free, low silver, intermediate temperature brazing filler metal. The long melting range of this filler metal is useful when wide gap joints are being brazed. Handy<sup>®</sup> Flux and Handy<sup>®</sup> Flux Type B-1 are recommended for use with this filler metal. Optimum brazing range is 1435°F-1600°F (780°C-870°C).

***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 have been brazed and tested for tensile strength at room temperature, on the listed metals, with the following typical results:

	Tensile Strength (lbs/in <sup>2</sup> )
Carbon Steel 1020	73,400
Carbon Steel 1095	62,500
Stainless Steel Type 304	60,500

***AVAILABLE FORMS***

---

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

## ***SPECIFICATIONS***

---

Silvaloy 255 alloy conforms to the following specifications:

- American Welding Society (AWS) A5.8/A5.8M BAg-37

## ***APPLICABLE PRODUCT CODE(S)***

---

The applicable Lucas-Milhaupt product code(s) for this technical data sheet: 32-255, 23929.

## ***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 255.

## ***WARRANTY CLAUSE***

---

Lucas-Milhaupt, Inc. believes the information contained herein to be reliable. However, the information is given by Lucas-Milhaupt, Inc. without charge and the user shall use such information at its own discretion and risk. This information is provided on an "AS IS" AND "AS AVAILABLE" basis and Lucas-Milhaupt, Inc. specifically disclaims warranties of any kind, either express or implied, including, but not limited to, warranties of title or implied warranties of merchantability or fitness for a particular purpose. No oral advice or written or electronically delivered information given by Lucas-Milhaupt, Inc. or any of its officers, directors, employees, or agents shall create any warranty. Lucas-Milhaupt, Inc. assumes no responsibility for results obtained or damages incurred from the use of such information in whole or in part.