

## **TRIMET® 215** **(PLYMETAL® A49NM)**

### ***NOMINAL COMPOSITION***

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#### **Braze Filler Metal: Silvaloy 491 (Clad Portion)**

Silver	49.0% ± 1.0%
Copper	27.5% ± 1.0%
Zinc	20.5% ± 2.0%
Manganese	2.5% ± 0.50%
Nickel	0.5% ± 0.25%
Other Elements (Total)	0.15% Max

#### **Core**

Copper	99.90% Min
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### ***PHYSICAL PROPERTIES***

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#### **Braze Filler Metal: Silvaloy 491 (Clad Portion)**

Melting Point (Solidus)	1238°F (670°C)
Flow Point (Liquidus)	1274°F (690°C)
Brazing Temperature Range	1274°F - 1500°F (690°C - 815°C)
Specific Gravity	9.03
Density (Troy oz/in <sup>3</sup> )	4.75

### ***PRODUCT USES***

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Trimet 215 is a three layer composite metal sandwich consisting of a copper core clad on each side with Silvaloy 491 alloy. The relative thicknesses of the three (3) layers are in a 1/2/1 ratio. Other relative thickness ratios can be produced for special applications if warranted.

Trimet 215 is useful for brazing large carbide tools inserts with braze surface areas in excess of 0.5 in<sup>2</sup> or linear dimension over 0.75 in. In these cases the stress normally set up in the carbide, by differential contraction between the carbide and tool shank during cooling, is relieved by the yielding of the copper core of the Trimet 215. This product is used as pre-placed shim at the interface of the parts being joined. Brazing procedures are identical with those required for Silvaloy 491.

Trimet shims have also found use in joining porous sintered parts and wire mesh screens where “wicking” of the filler metal is normally challenging. The copper core in these cases acts to restrict filler metal flow, confining it to the joint area where needed.

### ***AVAILABLE FORMS***

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Strip, engineered preforms, specialty preforms per customer specification.

## ***SPECIFICATIONS***

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Silvaloy 491 alloy conforms to the following specifications: N/A

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

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The applicable Lucas-Milhaupt product code(s) for this technical data sheet: 38-215, ESP3.

## ***SAFETY INFORMATION***

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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 Trimet 215.

## ***WARRANTY CLAUSE***

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