



235 Kilvert Street
Warwick, RI 02886

A World-Class Quality Partner
ISO 9001:2000
Certified

PRODUCT: SILVALOY[®] X55

NOMINAL COMPOSITION:

Copper	55.0 ± 1.0
Zinc	Balance
Nickel	6.0 ± 0.75
Manganese	4.0 ± 0.75

PHYSICAL CONSTANTS:

Solidus (Melting Point)	1590°F
Liquidus (Flow Point)	1625°F
Brazing Range	1650°-1850°F
Specific Gravity	8.35
Density (lb/cu in)	0.301
Electrical Conductivity (% IACS)	10.8
Electrical Resistivity (Michroh-m-cm)	16.0
Color	Light Yellow

DESCRIPTION:

SILVALOY X55 has excellent gap filling capability and plasticity when in the molten condition. It also exhibits excellent strength and ductility while cooling from the liquid stage. The improved strength and ductility at elevated temperatures gives it the added advantage over nickel silvers in joining materials with dissimilar coefficient of expansion.

PROPERTIES OF BRAZED JOINTS:

Joint strength, as with all filler metals, is dependent upon factors such as design, fluxing practice, cleaning, brazing technique, etc. When using the proper procedures, shear strength in joining AISI steels and tungsten carbide will exceed 25,000 psi.



PRODUCT: SILVALOY® X55 - CONTINUED

APPLICATIONS:

The primary application is in the joining of tungsten carbides to steel holders. This application requires an alloy with good gap filling characteristics as well as superior toughness and ductility at elevated temperatures **SILVALOY X55** has these properties.

SAFETY INFORMATION:

The operation and maintenance of brazing equipment of 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 X55**.

AVAILABLE FORMS:

Standard forms of **SILVALOY X55** are wire, strip, and preforms.

LIABILITY-DISCLAIMER:

Wolverine Joining Technologies, LLC, seeks to represent reliable information concerning the composition, properties and use of its products. The technical information provided in this publication is provided at no charge and is without guarantee, warranty or responsibility of any kind, expressed or implied.

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