235 Kilvert Street
Warwick, RI 02886

A World-Class Quality Partner
ISO 9001:2008
Registered

PRODUCT: SILVABRAZE ALLOY 33830

COMPOSITION:

Silver	1.00 wt%
Phosphorus	6.00 wt%
Copper	Balance
Tin	0.15 wt% max
Total Other Elements	0.15 wt% max.

MATERIAL PROPERTIES:

Solidus	1190°F (643°C)
Liquidus	1510°F (821°C)
Brazing Range	1450-1600°F (788-871°C)
Specific Gravity	8.085
Density (toz/cu in)	4.261
Color	Light Copper

DESCRIPTION:

SILVABRAZE is extremely fluid at brazing temperatures and will penetrate joint with very little clearance. Melting of **SILVABRAZE** is virtually complete at 1450°F (788°C). Best results are obtained when brazing slightly above Liquidus temperature with clearances of .001-.003". The phosphorous content of **SILVABRAZE** acts as a fluxing agent and no flux is necessary when brazing copper to copper joints. However, when used with other compatible metals, a brazing flux must be used to promote wetting, bonding, and flow throughout the joint.

APPLICATIONS:

SILVABRAZE is used for the brazing of copper and copper alloys, brass and bronze. It is primarily used for the joining of copper-to-copper on vibration free joints. It is very effective for joining tight fitting copper pipe and tubing. **SILVABRAZE** should not be used on ferrous metals or alloys containing more than 10% nickel due to the formation of brittle intermetallic phosphide compounds.

AVAILABLE FORMS:

Standard forms of **SILVABRAZE** are wire and rod.

PRODUCT: **SILVABRAZE- CONTINUED**
ALLOY 33830

PROPERTIES OF BRAZED JOINTS:

Generally, the joint strength using **SILVABRAZE** will surpass 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 **SILVABRAZE** are 300°F (continuous service) and 400°F (short time service). Corrosion resistance is satisfactory except when the joint is in contact with sulfurous atmosphere (especially at elevated temperatures).

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 **SILVABRAZE**.

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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