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SILVERBRAZE 85 (BAg-23)

TECHNICAL DATA

NOMINAL COMPOSITION

Silver	85.0% ± 1.0
Manganese	Remaining
Other Elements Total	0.15% Max

PHYSICAL PROPERTIES

Color	White
Solidus	1760°F (960°C)
Liquidus	1778°F (970°C)
Recommended Brazing Temperature	1828-1878°F (997-1025°C)
Density (Troy oz/in^3)	4.98
Specific Gravity	9.44
Electrical Conductivity (%IACS)	4.60
Electrical Resistivity (Microhm-cm)	37.5

USES

Silver Braze 85 is a specialty alloy used in applications requiring good strength at elevated service temperatures. This braze filler metal can be used in brazing of stainless steels. It is also effective for brazing certain complex chromium-titanium carbides.

BRAZING CHARACTERISTICS

Silver Braze 85 is a high temperature, free flowing silver brazing filler metal usable both for torch and atmosphere furnace brazing. Due to high flow point of this alloy; torch brazing may be accomplished with Flux. These fluxes may also be required as a supplement when brazing parts in a controlled atmosphere furnace. Even at 2000F (1093C) a dew point of -80F or better is required to reduce manganese oxides in hydrogen.

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.

Base Metal	Type of Joint	Test Temp (°F)	Tensile Strength (lbs/in^2)	Shear Strength (lbs/in^2)
316 Stainless Steel	Butt Joint (2" diameter rod)	RT	46,000-50,000	-
		1000	28,000	-
		1200	23,000	-
316 Stainless Steel	Lap Joint (0.25" Lap)	RT	-	25,000
		1000	-	8,000
		1200	-	6,000
1020 Steel	Butt Joint (2" diameter rod)	RT	52,000	-
		400	62,000	-
		600	58,000	-
		800	40,000	-
		1000	20,000	-
		1200	10,000	-

1020 Steel	Lap Joint (0.25” Lap)	RT	-	25,000
		800	-	21,000
		1000	-	15,000
		1200	-	9,000

SPECIFICATIONS

Silver Braze 85 conforms to: Unified Numbering System (UNS) P07850, American Welding Society (AWS) A5.8/A5.8M BAg-23, Society of Automotive Engineers (SAE) AMS 4766

AVAILABLE FORMS

Wire, strip, engineered preforms, specialty preforms per customer specification.

Individuals requiring further information and Engineering Specification Documents may wish to contact the Engineering Society for Advanced Mobility, Land Sea Air and Space, The Society of Automotive Engineers http://www.sae.org/ (SAE AMS) or The American Welding Society (AWS) http://aws.org/

NOTE:

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