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SILVERBRAZE 50 (BAg-6) TECHNICAL DATA

NOMINAL COMPOSITION	Silver	50.0% ± 1.0	
	Copper	34.0% ± 1.0	
	Zinc	16.0% ± 2.0	
	Other	0.15% Max	
PHYSICAL PROPERTIES	Color	Yellow White	
	Solidus	1270°F (687°C)	
	Liquidus	1425°F (773°C)	
	Recommended Brazing Temp.	1475-1525°F (801-829°C)	
	Density (Troy oz/in³)	4.92	
	Specific Gravity	9.34	
	Electrical Conductivity (%IACS)	25.5	
Electrical Resistivity (Microhm-cm)	6.76		
USES	Silver Braze 50 may be used on copper, brass, nickel-silver, bronze, steel and other non-ferrous alloys melting above 1450°F (765°C). SB50 has a flow point low enough for most non-ferrous alloys, combined with ductility, high tensile strength and good corrosion resistance, which makes it suitable for various commercial applications. On heavily galvanized or tinned steel its low zinc content permits absorption of more zinc or tin without joint embrittlement. One of the common uses for SB50 alloy has been in brazing of steam turbine blades.		
	BRAZING CHARACTERISTICS Silver Braze 50 is an intermediate temperature silver brazing filler metal with a fairly long (175°F/100°C) melting range. This long melting range is helpful when wide gap joints are brazed and is useful in producing large joint fillets to reduce the notch effect on stressed assemblies. This alloy exhibits a high degree of ductility and malleability, which is an advantage when parts are cold worked after brazing.		
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. The results listed below were generated from brazed butt joints which were tested under standard room temperature conditions.		
		Tensile Strength (lbs/in²)	Elongation (%. 2" gage length)
SPECIFICATIONS	Copper	25,000-30,000	13-22
	Brass	45,000-50,000	20-36
	Nickel-Silver	45,000-55,000	14-28
	Silver Braze 50 alloy conforms to: Unified Numbering System (UNS) P07503 and American Welding Society (AWS) A5.8/A5.8M BVAg-6		
AVAILABLE FORMS	Wire, strip, engineered preforms, specialty preforms per customer specification, powder and paste.		

**CORROSION
RESISTANCE**

<u>Solution</u>	<u>Test Temp.</u>	<u>Conditions</u>	<u>Weight Loss (Mgs/dcm²/Day)</u>
Wet Ammonia Gas	Room Temp.	Closed Container	0.29
Dry Ammonia Gas	Room Temp.	Closed Container	0.22
1% Acetic Acid	200°F (95°C)	Vapor	None
10% Acetic Acid	200°F (95°C)	Vapor	48

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:

DISCLAIMER

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