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GOLD BRAZE 7008 (BAu-6) TECHNICAL DATA

NOMINAL COMPOSITION	Gold	70% ± 0.5
	Palladium	8.0% ± 0.5
	Nickel	22% ± 0.5
	Other Elements Total	0.15% Max
PHYSICAL PROPERTIES	Color	Gold Gray
	Solidus	1845°F (1007°C)
	Liquidus	1915°F (1046°C)
	Recommended Brazing Temperature	1965-2015°F (1073-1101°C)
	Density (Troy oz/in³)	7.66
	Specific Gravity	14.5
	Electrical Conductivity (%IACS)	8.50
Electrical Resistivity (μohm-cm)	20.3	
USES	Gold Braze 7008 can be used on any of the common ferrous, non-ferrous, and super alloys. Typical applications include brazing of electron tubes, vacuum tubes, wave guides in electronic industry. In aerospace industry, Gold Braze 7008 can be used in brazing of fuel line assemblies and aero-engine components.	
BRAZING CHARACTERISTICS	Gold Braze 7008 is a high strength, high ductility alloy that exhibits higher corrosion and oxidation resistance in comparison to standard gold-copper alloys. The addition of nickel render this alloy somewhat more sluggish in flow characteristics but improves wettability on ferrous alloys.	
PROPERTIES OF BRAZED JOINTS	The properties of a brazed joint are dependent upon numerous factors including base metal properties, joint design and brazing technique. For controlled atmosphere brazing or vacuum brazing the recommended radial joint clearance for gold base alloys fall within 0.000in – 0.002in (0.00mm-0.05mm) range.	
SPECIFICATIONS	Gold Braze 7008 alloy conforms to: Unified Numbering System (UNS) P00700, American Welding Society (AWS) A5.8/A5.8M BAu-6, Society of Automotive Engineers (SAE) AMS 4786	
AVAILABLE FORMS	Wire, strip, engineered preforms, specialty preforms per customer specification, powder and paste.	

BAu COMPARISON

The table below shows some of the physical properties of commonly used BAu alloys

AMS	AWS	Au	Ni	Cu	Pd	Solidus	Liquidus	Wetting	Corrosion Resistance	Density (Toz/in. ³)	Yield Strength (MPa)	Tensile Strength (MPa)	Thermal Conductivity (W/(m*K))	CTE (x10 ⁻⁶ /°C)	Electrical Resistivity (x10 ⁻⁹ ohm*m)	Electrical Conductivity (x10 ⁶ /ohm*m)	Hardness (KHN)	Elongation (%)
AMS 4787	BAu-4	82	18	-	-	1742	1742	Excellent	Excellent	8.41	686	792	28	17.5	274	3.7	-	14
AMS 4786	BAu-6	70	22	-	8	1841	1899	Excellent	Excellent	7.79	758	847	21	14	369	2.7	327	20
AMS 4784	BAu-7	50	25	-	25	2016	2050	Excellent	Excellent	7.05	655	827	29	17	269	3.7	337	28
-	BAu-3	35	3	62	-	1832	1886	Excellent	Good	5.81	185	427	70	17.8	110	9.1	-	28

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/>

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