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HT-080

TECHNICAL DATA

NOMINAL COMPOSITION	Copper	54.85% ± 1.0
	Zinc	25.0% ± 2.0
	Manganese	12.0% ± 1.0
	Nickel	8.0% ± 1.0
	Silicon	0.15% ± 0.05
	Other Elements, Total	0.25% Max
PHYSICAL PROPERTIES	Color	Light Silver
	Solidus	1575°F (855°C)
	Liquidus	1675°F (915°C)
	Recommended Brazing Temperature	1725-1775°F (941-968°C)
	Density (g/cm³)	8.19
USES	Shear Strength (lbs/in²)	28-30,000
	HT-080 is primarily used in joining carbide components to steel holders as well as for brazing stainless steel.	
BRAZING CHARACTERISTICS	HT-080 can be brazed by a variety of different processes including induction and atmospheric furnace brazing. It exhibits excellent gap filling capabilities and plasticity in the molten state which minimizes joint cracking tendencies that can occur with nickel silvers. It is important to ensure that the base components are properly cleaned prior to the application of the braze alloy.	
	HT-080 exhibits improved strength and ductility at elevated temperatures compared to other nickel silvers. This is beneficial for minimizing any distortion caused from a mismatch in thermal expansion coefficients of the base metals.	
PROPERTIES OF BRAZED JOINTS	*The mechanical properties listed above were determined from lap joints of tungsten carbide and SAE 8740 steel tested at ambient temperatures.	
SPECIFICATIONS	HT-080 conforms to: NA	
AVAILABLE FORMS	Strip, engineered preforms, specialty preforms, powder and paste	
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."	
	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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