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#548 (HT-548)

TECHNICAL DATA

NOMINAL COMPOSITION	**Copper**	55.0% ± 2.0
	Nickel	6.0% ± 1.0
	Manganese	4.0% ± 1.0
	Silicon	0.15% ± 0.05
	Zinc	Balance
	Other Elements, Total	0.15% Max
PHYSICAL PROPERTIES	**Solidus**	1615°F (880°C)
	Liquidus	1685°F (920°C)
	Recommended Brazing Temperature	1735-1785°F (946-974°C)
	Density (g/cm^3)	8.13
	Specific Gravity	8.36
	Electrical Conductivity (%IACS)	6.6
	Electrical Resistivity (µohm-cm)	26.3
	Shear Strength (lbs/in^2)	28-30,000

USES

#548 is primarily used in joining carbide components to steel holders. The improved gap filling capabilities and ductility of #548 make it a suitable alloy for this application.

BRAZING CHARACTERISTICS

#548 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. It is important to ensure that the base components are properly cleaned prior to the application of the braze alloy.

*The mechanical properties listed above were determined from lap joints of tungsten carbide and SAE 8740 steel tested at ambient temperatures.

PROPERTIES OF BRAZED JOINTS

#548 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.

SPECIFICATIONS

#548 conforms to: N/A

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:

DISCLAIMER

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