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AMS 4782 (BNi-5) TECHNICAL DATA

NOMINAL COMPOSITION		
	Nickel	Remainder
	Chromium	19.0% ± 0.5
	Silicon	10.125% ± 0.375
	Boron	0.03% max
	Carbon	0.06% max
	Phosphorous	0.02% max
	Sulfur	0.02% max
	Aluminum	0.05% max
	Titanium	0.05% max
	Zirconium	0.05% max
	Cobalt	0.10% max
	Selenium	0.005% max
	Other Elements, Total**	0.50% max

**The filler metal shall be analyzed for those specific elements for which values are shown in this table. If the presence of other elements is indicated in the course of this work, the amount of those elements shall be determined to ensure that their total does not exceed the limit specified

PHYSICAL PROPERTIES		
	Color	Iron Gray
	Solidus	1975°F (1065°C)
	Liquidus	2075°F (1135°C)
	Recommended Brazing Temperature	2125-2175°F (1163-1191°C)
	Density (Lbs/in ³)	0.24
	Specific Gravity	N/A
	Electrical Conductivity (%IACS)	N/A
	Electrical Resistivity (Microhm-cm)	N/A

USES
AMS 4782 composition makes it suitable for the brazing of nickel, chromium, or iron base metals. Some of the applications for this filler metal are highly stressed sheet metal components, jet engine parts, and assemblies used in corrosive conditions. It's similar to BNi-1, but it is boron free, making it suitable for certain nuclear applications.

BRAZING CHARACTERISTICS
With its high silicon content, AMS 4782 is a good choice for narrow, deep joints or for honeycomb components. The high chrome content is a plus for components that will endure corrosive or oxidating service conditions. When wetting to base metals which contain higher Al or Ti content in an inert atmosphere, nickel plating of the base metal is recommended. Dry reducing atmospheres or inert atmospheres are recommended.

**PROPERTIES OF
BRAZED JOINTS**

The properties of a brazed joint are dependent upon the base metal, joint design and brazing technique. For atmospheric brazing the recommended radial joint clearance for nickel-base alloys fall within .000-.002” range for atmosphere brazing.

SPECIFICATIONS

AMS 4782 conforms to: Unified Numbering System (UNS) N99650, American Welding Society (AWS) A5.8/A5.8M BNi-5 and Society of Automotive Engineers (SAE) AMS 4782

AVAILABLE FORMS

Foil, powder, tape and preforms to customer specifications

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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