

## Prince & Izant Company

12999 Plaza Drive  
Cleveland, Ohio 44130  
T: 216-362-7000  
F: 216-362-7456  
[princeizant.com](http://princeizant.com)



## SILVERBRAZE 65Ni2

### TECHNICAL DATA

<b>NOMINAL COMPOSITION</b>	<b>Silver</b>	65.0% ± 1.0
	<b>Copper</b>	28.0% ± 1.0
	<b>Manganese</b>	5.0% ± 0.5
	<b>Nickel</b>	2.0% ± 0.5
	<b>Other Elements Total</b>	0.15% Max
<b>PHYSICAL PROPERTIES</b>	<b>Color</b>	White
	<b>Solidus</b>	1385°F (750°C)
	<b>Liquidus</b>	1560°F (850°C)
	<b>Recommended Brazing Temperature</b>	1610-1660°F (877-904°C)
	<b>Density (Troy oz/in<sup>3</sup>)</b>	5.15
	<b>Specific Gravity</b>	9.78
	<b>Electrical Conductivity (%IACS)</b>	12.8
<b>Electrical Resistivity (Microhm-cm)</b>	13.4	
<b>USES</b>	Silver Braze 65Ni2 is a zinc-free brazing alloy commonly used in flux free brazing of Kovar and other low expansion alloys found in vacuum tube applications. Due to its nickel content it can also be used to successfully join tungsten carbide and other cobalt-containing materials used in cutting tools.	
	Silver Braze 65Ni2 is an intermediate temperature silver brazing alloy with a slightly wide melt range (175°F) and can therefore tend to liquate if heated slowly between the solidus and liquidus. However, the long melting range is useful when wide gap joints are brazed as it will bridge the gap and produce larger fillets than more fluid filler metals. Silver Braze 65Ni2 can be brazed by both torch and induction as well as under a protective atmosphere.	
<b>BRAZING CHARACTERISTICS</b>	The properties of a brazed joint are dependent upon numerous factors including base metal properties, joint design, metallurgical interaction between the base metal and filler metal. The following tensile results were generated from 1020 steel butt joints:	
	<u>Test Temperature (°F)</u>	<u>Tensile Strength (lbs/in<sup>2</sup>)</u>
<b>PROPERTIES OF BRAZED JOINTS</b>	Room Temperature	52,000
	200	52,000
	400	52,000
	600	52,000
	800	29,000
	1000	16,000
	1200	7,500
<b>SPECIFICATIONS</b>	Silver Braze 65Ni2 conforms to: N/A	

**AVAILABLE FORMS**

Wire, strip, engineered preforms, specialty preforms per customer specification, powder and paste.

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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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