

Bellman-Melcor

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#A-54N (BAg-13)

TECHNICAL DATA

NOMINAL COMPOSITION	Silver	54.0% ± 1.0
	Copper	40.0% ± 1.0
	Zinc	5.0% ± 2.0
	Nickel	1.0% ± 0.5
	Other Elements Total	0.15% Max
PHYSICAL PROPERTIES	Color	White
	Solidus	1325°F (718°C)
	Liquidus	1575°F (857°C)
	Recommended Brazing Temperature	1625-1675°F (885-912°C)
	Density (Troy oz/in³)	5.07
	Specific Gravity	9.63
	Electrical Conductivity (%IACS)	49.8
	Electrical Resistivity (Microhm-cm)	3.46
USES	#A-54N is employed in numerous furnace brazing situation because of its low zinc content. The US Air Force specifies it for many jet engineer sub-assemblies. It is used for making joints that are subjected to elevated temperatures, ranging up to 700°F (370°C) particularly on stainless steel.	
	#A-54N is an intermediate temperature silver brazing alloy with a rather long, 235°F (130°C) melting range. It tends to liquate (Separation into low and high melting constituents) if heated slowly through its melting range. Therefore, it is preferable to use this alloy where the assembly can be heated rapidly to brazing temperature. The long melting range of this alloy is useful when wide gap joints are hand fed since semi-fluid alloys can be working across the gaps. Flux is recommended.	
BRAZING CHARACTERISTICS	Stainless steel butt joints furnace brazed (in atmosphere) with #A-54N develop room temperature tensile strengths of 50,000 – 60,000 PSI with commercial joint clearances. Optimum joint clearances will produce higher tensile values. The results listed below were generated from brazed butt joints which were tested under standard room temperature conditions.	
PROPERTIES OF BRAZED JOINTS		
SPECIFICATIONS	#A-54N conforms to: Unified Numbering System (UNS) P07540, American Welding Society (AWS) A5.8/A5.8M BAg-13 and Society of Automotive Engineers (SAE) AMS 4772	
	Wire, strip, engineered preforms, specialty preforms per customer specification, powder and paste.	
AVAILABLE FORMS	Wire, strip, engineered preforms, specialty preforms per customer specification, powder and paste.	

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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