

Bellman-Melcor

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#25 (BAg-27)

TECHNICAL DATA

NOMINAL COMPOSITION	Silver	25.0% ± 1.0	
	Copper	35.0% ± 1.0	
	Zinc	26.5% ± 2.0	
	Cadmium	13.5% ± 1.0	
	Other Elements, Total	0.15% Max	
PHYSICAL PROPERTIES	Color	Light Yellow	
	Solidus	1125°F (607°C)	
	Liquidus	1375°F (745°C)	
	Recommended Brazing Temperature	1425-1475°F (774-802°C)	
	Density (Troy oz/in³)	4.71	
	Specific Gravity	8.94	
	Electrical Conductivity (%IACS)	29.7	
Electrical Resistivity (Microhm-cm)	5.7		
USES	<p>#25 (BAg-27) is a general purpose, low temperature silver base brazing filler metal used to join both ferrous and non-ferrous metals. Due to fairly low cost, good fatigue strength and ability to make leak-tight joints where close clearances cannot be maintained, it has been widely used in the refrigeration and air-conditioning industry.</p>		
	<p>#25 (BAg-27) is a relatively low temperature, economical, brazing filler metal capable of bridging gaps where tight joint fit-ups cannot be maintained. #25 tends to liquefy (separate into low and high melting constituents) when heated slowly and therefore it is preferable to use it where the heat source is sufficient to raise the part temperature rapidly through the melting range of the brazing filler metal.</p>		
BRAZING CHARACTERISTICS	<p>The properties of a brazed joint are dependent upon numerous factors including base metal properties, joint design, metallurgical interaction between the base metal and the filler metal.</p>		
	Base Metal	Tensile Strength (lbs/in²)	Elongation, in 2" (%)
PROPERTIES OF BRAZED JOINTS	SAE 1020 Steel	58,000	10
	304 Stainless Steel	72,000	10
SPECIFICATIONS	#25 conforms to: Unified Numbering System (UNS) P07251 and American Welding Society (AWS) A5.8/A5.8M BAg-27		
AVAILABLE FORMS	Wire, strip, engineered preforms, specialty preforms per customer specification, 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."		

WARNING

Contains cadmium – poisonous fumes may be formed when heated.

Do not breathe fumes. Use only with adequate ventilation such as fume collectors, exhaust ventilators, or air supplied respirators. See American National Standard Z49.1. If chest pain, cough or fever develops after use, call a physician immediately! Keep children away when using!

Bellman-Melcor (A Prince & Izant Company) recommends using **cadmium-free** alloys for brazing applications. If you are presently using cadmium bearing alloy and need assistance in identifying a suitable cadmium free substitute, please contact your sales representative.

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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