

Bellman-Melcor

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#102 (OFHC) (BCu-3)

TECHNICAL DATA

NOMINAL COMPOSITION	Copper	99.95% Min
	Oxygen	0.0010% Max
	Other Elements, Total	0.05% Max
PHYSICAL PROPERTIES	Color	Copper
	Solidus	1981°F (1083°C)
	Liquidus	1981°F (1083°C)
	Recommended Brazing Temperature	1981-2081°F (1082-1138°C)
	Density (lbs./in³)	0.32
	Specific Gravity	8.94
	Electrical Conductivity (%IACS)	101
Electrical Resistivity (Microhm-cm)	1.71	
USES	#102 is a fluid filler metal used for brazing of ferrous and nickel-based alloys in particular steel, stainless steel and copper-nickel alloys. This alloy is typically used in furnace braze applications without the use of flux.	
BRAZING CHARACTERISTICS	#102 is a free-flowing filler metal that exhibits good wetting characteristics on ferrous and nickel-based materials. Maximum strength and joint integrity are obtained where joint clearance falls within the range of 0.000in – 0.001in (0.000-0.025mm) per side.	
PROPERTIES OF BRAZED JOINTS	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.	
SPECIFICATIONS	#102 alloy conforms to: American Welding Society (AWS) A5.8/A5.8M BCu-3, Unified Numbering System (UNS) C10200, Society of Automotive Engineers (SAE)/AMS 4501 (sheet chemistry only) & AMS 4701 (wire chemistry only)	
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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