

## Lucas-Milhaupt HANDY HI-TEMP 870 High Temperature Alloy

Category : Metal , Nonferrous Metal , Copper Alloy , Solder/Braze Alloy

### Material Notes:

**Characteristics:** Because of the wide melting range, this filler metal has good gap filling characteristics at the lower end of the brazing range and is relatively free-flowing near the upper end. Wetting is excellent on carbide stainless steel and copper. Recommended brazing clearances are .006"-.012". Fluxless braze in a vacuum or suitable protective atmosphere, or induction or furnace braze using Handy Hi-Temp M, Handy Hi-Temp DB or Handy Hi-Temp Boron Modified Flux. **Applications:** Handy Hi-Temp 870 is a bronze filler metal used for tungsten carbide to steel joints or stainless steels, requiring optimum high temperature shear strength, toughness and corrosion resistance. Brazing is often done in conjunction with heat treatment of the steel. Information provided by Lucas-Milhaupt, Inc.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Lucas-Milhaupt-HANDY-HI-TEMP-870-High-Temperature-Alloy.php](http://www.lookpolymers.com/polymer_Lucas-Milhaupt-HANDY-HI-TEMP-870-High-Temperature-Alloy.php)

Physical Properties	Metric	English	Comments
Density	8.75 g/cc	0.316 lb/in <sup>3</sup>	

Mechanical Properties	Metric	English	Comments
Shear Strength	241 - 276 MPa	35000 - 40000 psi	Tungsten Carbide/ Tool Steel lap joints

Thermal Properties	Metric	English	Comments
Melting Point	960 - 1029 Â°C	1760 - 1885 Â°F	
Solidus	960 Â°C	1760 Â°F	Melting Point
Liquidus	1029 Â°C	1885 Â°F	Flow Point

Component Elements Properties	Metric	English	Comments
Cobalt, Co	2.5 - 3.5 %	2.5 - 3.5 %	
Copper, Cu	86 - 88 %	86 - 88 %	
Manganese, Mn	9.0 - 11 %	9.0 - 11 %	
Other, total	<= 0.15 %	<= 0.15 %	

Electrical Properties	Metric	English	Comments
Electrical Resistivity	0.0000119 ohm-cm	0.0000119 ohm-cm	

Processing Properties	Metric	English	Comments
Processing Temperature	1010 - 1090 Â°C	1850 - 2000 Â°F	Brazing Range

Descriptive Properties	Value	Comments
Color	Light Copper	

## Contact Songhan Plastic Technology Co.,Ltd.

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