

## Lucas-Milhaupt SIL-FOS 2 Silver/ Copper/ Phosphorus Alloy

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

### Material Notes:

**Applications:** Sil-Fos 2 is a low cost brazing filler metal suitable for joining copper to copper and copper to copper alloys where critical impact or vibration stresses are not encountered in service. It should only be used on assemblies where good fitup can be maintained.

**Characteristics:** Sil-Fos 2 is a copper-rich, intermediate temperature, brazing filler metal that is free-flowing and self-fluxing on copper by virtue of its phosphorus content. This alloy is extremely fluid when heated rapidly to its flow point and will penetrate joints with very little clearance. Best results are obtained with joint clearances of .001 - .003 in. Sil-Fos 2 liquates (i.e. separates into high and low melting constituents) if heated slowly through its melting range. The self-fluxing property of Sil-Fos 2 is effective on copper only. Copper base alloys, such as brass or bronze, may be brazed with Sil-Fos 2 if the joints are coated with Handy Flux. Sil-Fos 2 should not be used on ferrous metals or nickel base alloys, since the phosphorus produces brittle iron or nickel phosphorus at the joint interface.

**Specifications:** This alloy conforms to the following specifications: AWS A5.8 BCuP-6, ASME Boiler & Pressure Vessel Code, Sec.II-C, SFA5.8 BCuP-6 Information provided by Lucas-Milhaupt, Inc.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Lucas-Milhaupt-SIL-FOS-2-Silver-Copper-Phosphorus-Alloy.php](http://www.lookpolymers.com/polymer_Lucas-Milhaupt-SIL-FOS-2-Silver-Copper-Phosphorus-Alloy.php)

Physical Properties	Metric	English	Comments
Density	8.00 g/cc	0.289 lb/in <sup>3</sup>	

Thermal Properties	Metric	English	Comments
Melting Point	640.6 - 779.4 Â°C	1185 - 1435 Â°F	
Solidus	640.6 Â°C	1185 Â°F	Melting Point
Liquidus	779.4 Â°C	1435 Â°F	Flow Point

Component Elements Properties	Metric	English	Comments
Copper, Cu	>= 90.45 %	>= 90.45 %	
Other, total	<= 0.15 %	<= 0.15 %	
Phosphorous, P	6.8 - 7.2 %	6.8 - 7.2 %	
Silver, Ag	1.8 - 2.2 %	1.8 - 2.2 %	

Electrical Properties	Metric	English	Comments
Electrical Resistivity	0.00003148 ohm-cm	0.00003148 ohm-cm	

Processing Properties	Metric	English	Comments
Processing Temperature	704 - 816 Â°C	1300 - 1500 Â°F	Brazing Range

Descriptive Properties	Value	Comments
Color	Gray	

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