

## Lucas-Milhaupt Silvaloy® 18M Brazing Alloy

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

### Material Notes:

Silvaloy 18M is a ternary alloy of silver, phosphorus, and copper approaching the eutectic composition. It is very fluid at brazing temperature and should be used on well fitted joints. Silvaloy 18M low brazing temperature and narrow solidus, liquidus range makes it ideal for applications where temperature is a factor with slow heating rates, such as in furnace brazing. Applications: Silvaloy 18M is used for joining copper and copper alloys, such as brass or bronze. It is suitable for use on silver, tungsten, and molybdenum. It should not be used on ferrous nickel alloys. On copper to copper applications, it is self-fluxing due to the fluxing action of the phosphorus content. It's low melting temperature makes it ideal for application on copper to brass temperature and dezincification is a factor. Information provided by Lucas-Milhaupt Warwick, LLC (formerly Wolverine Joining Technologies).

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Lucas-Milhaupt-Silvaloy-18M-Brazing-Alloy.php](http://www.lookpolymers.com/polymer_Lucas-Milhaupt-Silvaloy-18M-Brazing-Alloy.php)

Physical Properties	Metric	English	Comments
Specific Gravity	8.35 g/cc	8.35 g/cc	
Density	8.36 g/cc	0.302 lb/in <sup>3</sup>	

Thermal Properties	Metric	English	Comments
Melting Point	643 - 668.3 °C	1190 - 1235 °F	
Solidus	643 °C	1190 °F	
Liquidus	668.3 °C	1235 °F	
Maximum Service Temperature, Air	204 °C	400 °F	continuous
	260 °C	500 °F	intermittent

Component Elements Properties	Metric	English	Comments
Copper, Cu	74.35 - 77 %	74.35 - 77 %	As balance
Other, total	<= 0.15 %	<= 0.15 %	
Phosphorous, P	6.0 - 6.5 %	6.0 - 6.5 %	
Silver, Ag	17 - 19 %	17 - 19 %	

Electrical Properties	Metric	English	Comments
Electrical Resistivity	0.0000290 ohm-cm	0.0000290 ohm-cm	

Processing Properties	Metric	English	Comments
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Processing Properties	Metric	English	Comments
	652 °F 732 Å°C	1225 1350 Å°F	Temperature
Descriptive Properties	Value	Comments	
Color	Light Copper		
Electrical Conductivity (% IACS)	6		

## Contact Songhan Plastic Technology Co.,Ltd.

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