

## Lucas-Milhaupt BRAZE 403 Carbide Brazing Alloy

Category : Metal , Nonferrous Metal , Precious Metal , Silver Alloy , Solder/Braze Alloy

### Material Notes:

**Applications:** Braze 403 is a good intermediate temperature brazing alloy for use on stainless steels, mild steels, cast and malleable irons and various nonferrous alloys. This alloy is particularly useful for brazing stainless steel food containers and food handling equipment where a cadmium-free brazing alloy is specified. **Characteristics:** Braze 403 is an intermediate temperature silver brazing filler metal with a fairly long (215Â°F/100Â°C) melting range. It has a tendency to liquate (i.e. separate into low and high melting constituents) and therefore it is preferable to use this filler metal melting range, or where the assembly can be preheated before the filler metal is applied.

**Specifications:** This alloy conforms to the following specifications - AWS A5.8 BAg-4, ASME Boiler & Pressure Vessel Code Sec. II C, SFA-5.8 BAg-4 Information provided by Lucas-Milhaupt, Inc.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Lucas-Milhaupt-BRAZE-403-Carbide-Brazing-Alloy.php](http://www.lookpolymers.com/polymer_Lucas-Milhaupt-BRAZE-403-Carbide-Brazing-Alloy.php)

Physical Properties	Metric	English	Comments
Density	9.04 g/cc	0.327 lb/inÂ³	

Mechanical Properties	Metric	English	Comments
Tensile Strength, Ultimate	53.1 MPa	7700 psi	18-8 stainless steel butt joint.
	@Temperature 538 Â°C	@Temperature 1000 Â°F	
	93.8 MPa	13600 psi	18-8 stainless steel butt joint.
	@Temperature 427 Â°C	@Temperature 800 Â°F	
	262 MPa	38000 psi	18-8 stainless steel butt joint.
	@Temperature 316 Â°C	@Temperature 600 Â°F	
356 MPa	51700 psi	18-8 stainless steel butt joint.	
@Temperature 204 Â°C	@Temperature 400 Â°F		
452 MPa	65600 psi	18-8 stainless steel butt joint.	
@Temperature 93.3 Â°C	@Temperature 200 Â°F		
555 MPa	80500 psi	18-8 stainless steel butt joint.	
@Temperature 22.2 Â°C	@Temperature 72.0 Â°F		
Elongation at Break	0.00 %	0.00 %	in 2", 18-8 stainless steel butt joint.
	@Temperature 316 Â°C	@Temperature 600 Â°F	
	0.00 %	0.00 %	in 2", 18-8 stainless steel butt joint.

Mechanical Properties	@Temperature 427 Â°C Metric	@Temperature 800 Â°F English	Comments
	0.00 %	0.00 %	
	@Temperature 538 Â°C	@Temperature 1000 Â°F	in 2", 18-8 stainless steel butt joint.
	1.5 %	1.5 %	
	@Temperature 204 Â°C	@Temperature 400 Â°F	in 2", 18-8 stainless steel butt joint.
	1.6 %	1.6 %	
	@Temperature 22.2 Â°C	@Temperature 72.0 Â°F	in 2", 18-8 stainless steel butt joint.
	2.4 %	2.4 %	
	@Temperature 93.3 Â°C	@Temperature 200 Â°F	in 2", 18-8 stainless steel butt joint.
Shear Strength	241 - 276 MPa	35000 - 40000 psi	Butt Joints in stainless steels

Thermal Properties	Metric	English	Comments
Melting Point	671 - 779.4 Â°C	1240 - 1435 Â°F	
Solidus	671 Â°C	1240 Â°F	Melting Point
Liquidus	779.4 Â°C	1435 Â°F	Flow Point

Component Elements Properties	Metric	English	Comments
Copper, Cu	29 - 31 %	29 - 31 %	
Nickel, Ni	1.75 - 2.25 %	1.75 - 2.25 %	
Other, total	<= 0.15 %	<= 0.15 %	
Silver, Ag	39 - 41 %	39 - 41 %	
Zinc, Zn	26 - 30 %	26 - 30 %	

Electrical Properties	Metric	English	Comments
Electrical Resistivity	0.00001027 ohm-cm	0.00001027 ohm-cm	

Descriptive Properties	Value	Comments
Color	Light Yellow	

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