

UNIBRAZE® 1100

Specifications: AWS SFA A5.10

Classification: ER1100

Description:

UNIBRAZE 1100 is a 99% Aluminum wire that is highly resistant to chemical attack and weathering. It is recommended for welding 1100 and 3003 aluminum sheets, plates and shapes

Typical Chemistry Analysis					
Fe&Si	Cu	Mn	Zn	Other	Be*
0.95 max	0.05-0.20	0.05 max	0.10 max	0.15 max	0.0008 max
Al					
99.0 min.					

*included in others

Typical Mechanical Properties**	
Tensile Strength	13-24 ksi
Yield Strength	5-22 ksi
Elongation %	5-35 %

**Dependent on temper

UNIBRAZE® 2319

Specifications: AWS SFA A5.10

Classification: ER2319

Description:

UNIBRAZE 2319 is widely used in high strength structural and aircraft applications where superior resistance to stress corrosion cracking and high elevated temperature properties are desired. The alloy is heat treatable and provides higher strength and better ductility than the 4XXX filler alloys when welding 2XXX alloys.

Typical Chemistry Analysis					
Si	Fe	Cu	Mn	Mg	Zn
0.20 Max	0.30 Max	5.8 - 6.8	0.20-0.40	0.02 Max	0.10 Max
Ti	Other	Be*	Al		
0.10-0.20	0.15 Max	0.0008 Max	Rem		

*included in others

Typical Mechanical Properties	
Tensile Strength	35 ksi
Yield Strength	26 ksi
Elongation %	%

UNIBRAZE® 4043

Specifications: AWS SFA A5.10

Classification: ER4043

Description:

Unibraze 4043 is a 5% Silicon Aluminum filler metal recommended for welding 2014, 3003, 3004, 5052, 6061, and 6101 (in various conditions of heat treatment and 6063 sheets, plates and shapes).

Typical Chemistry Analysis					
Si	Fe	Cu	Mn	Mg	Zn
4.5 - 6.0	0.8 max	0.30 max	0.05 max	0.05 max	0.10 max
Ti	Other	Be*	Al		
0.20 max	0.15 max	0.0008 max	Rem		

*included in others

Typical Mechanical Properties**	
Tensile Strength	20-34 ksi
Yield Strength	10-28 psi
Elongation %	4-12 %

**Dependent on base alloy welded

UNIBRAZE® IS A REGISTERED TRADEMARK OF UNIBRAZE CORP.

Data contained in this catalog are typical of the products described, but are not suitable for specifications.

UNIBRAZE® 4047 (718)Specifications: AWS SFA A5.10/A5.8Classification: ER4047/BA1Si-4**Description:**

Unibraze 4047 is a 12% Silicon Aluminum brazing rod that is recommended for torch brazing and dip or furnace brazing of 1060, 1350, 3003, 5005, 6061, 6063, and 7005.

Typical Chemistry Analysis					
Si	Fe	Cu	Mn	Mg	Zn
11.0-13.0	0.8 max	0.30 max	0.15 max	0.10 max	0.20 max
Other	Be*	Al			
0.15 max	0.0008 max	Rem			

*included in others

Typical Mechanical Properties**

Tensile Strength	20-34 ksi
Yield Strength	10-28 ksi
Elongation %	4-12 %

**Dependent on base alloy welded

UNIBRAZE® 5183Specifications: AWS SFA A5.10Classification: ER5183**Description:**

Unibraze 5183 is used in marine and structural applications where high strengths, high fracture toughness for impact resistance, and exposure to corrosive elements are important. It is used to weld 5083, 6061, 6063, 5086, 7005 and 7039 alloys.

Typical Chemistry Analysis					
Si	Fe	Cu	Mn	Mg	Cr
0.40 max	0.40 max	0.10 max	0.50-1.0	4.3-5.2	0.05-0.25
Zn	Ti	Other	Be*	Al	
0.25 max	0.15 max	0.15 max	0.0008 max	Rem	

*included in others

Typical Mechanical Properties**

Tensile Strength	40-45 ksi
Yield Strength	18-26 ksi
Elongation %	12-16 %

**Dependent on base alloy welded

UNIBRAZE® 5356Specifications: AWS SFA A5.10Classification: ER5356**Description:**

Unibraze 5356 is a 5% Magnesium Aluminum that offers corrosion resistance when exposed to salt water. It is used to weld 5050, 5052, 5083, 5356, 5454, and 5456 base metal.

Typical Chemistry Analysis					
Si	Fe	Cu	Mn	Mg	Cr
0.25 max	0.40 max	0.10 max	0.05-0.20	4.5-5.5	0.05-0.20
Zn	Ti	Other	Be*	Al	
0.10 max	0.06-0.20	0.15 max	0.0008 max	Rem	

*included in others

Typical Mechanical Properties**

Tensile Strength	27-46 ksi
Yield Strength	12-30 ksi
Elongation %	10-17 %

**Dependent on base alloy welded

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UNIBRAZE® 5554

Specifications: AWS SFA A5.10

Classification: ER5554

Description:

UNIBRAZE 5554 is widely used in the manufacture of chemical storage tanks, automotive wheels, and in particular, those applications that may be subjected to temperatures in excess of 150°F. This combination of alloys does not become sensitive to stress corrosion cracking at elevated temperatures.

Typical Chemistry Analysis					
Si	Fe	Cu	Mn	Mg	Cr
0.25 Max	0.40 Max	0.10 Max	0.50- 1.0	2.4 - 3.0	0.05- 0.20
Zn	Ti	Other	Be*	Al	
0.25 Max	0.05- 0.20	0.15 Max	0.0008 Max	Rem	

*included in others

Typical Mechanical Properties**	
Tensile Strength	35 ksi
Yield Strength	16 ksi
Elongation %	17 %

**As Welded

UNIBRAZE® 5556

Specifications: AWS SFA A5.10

Classification: ER5556

Description:

Unibraze 5556 offers an excellent combination of corrosion resistance, strength, toughness, workability, and weldability. It is recommended for welding 5083, 5086 5154, 5254 and 5456 high tensile aluminum alloys.

Typical Chemistry Analysis					
Si	Fe	Cu	Mn	Mg	Cr
0.25 max	0.40 max	0.10 max	0.5 - 1.0	4.7 - 5.5	0.05- 0.20
Zn	Ti	Other	Be*	Al	
0.25 max	0.05- 0.20	0.15 max	0.0008 max	Rem	

*included in others

Typical Mechanical Properties**	
Tensile Strength	45 ksi
Yield Strength	23 ksi
Elongation %	14 %

**As Welded

UNIBRAZE® 1300

Specifications:

Classification: E4043

Description:

Unibraze 1300 is an all position 5% silicon aluminum arc welding electrode with exclusive self lifting slag. It is used for low temperature production and maintenance welding of cast and wrought aluminum sheets, plates, castings and extrusions. It provides good color match and excellent corrosion resistance. Applications include tanks, pipes, appliances, refrigeration equipment, irrigation equipment, automobile parts and parts found in the chemical, food, and laundry industries.

Typical Chemistry Analysis					
Si	Fe	Cu	Mn	Mg	Zn
4.5 - 6.0	0.8 max	0.30 max	0.05 max	0.05 max	0.10 max
Ti	Be	Other	Al		
0.20 max	0.0008 max	0.15 max	Rem		

Typical Mechanical Properties	
Tensile Strength	34,000 psi
Yield Strength	20,000 psi
Elongation % in 2"	18 %

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