EcoBraze 38256

EcoBraze 38256 is excellent when low temperature brazing, snug fits (.001” to .002”), and rapid fluid flow are required. This white color (as brazed) brazing alloy has good corrosion properties and color match to stainless steel. It is used in low temperature carbide brazing, as a maintenance-brazing alloy for thin section steel products, and in other areas where strength and low temperature joining serves an advantage. It works well on stainless, nickels, and steels. Because of its white color, it is not typically used on brasses or bronzes unless joint color is not a problem.

Nominal Composition					Soli-dus	Liquidus	Recommended Brazing Range	AWS A 5.8	Fed. Spec. QQ-B-654A	SAE/ Aeronautical Mat’l Spec.	Density	Approximate Wire Length (In / Troy Oz)		
Ag	Cu	Zn	Sn	Ni								1/16”	3/32”	1/8”
56	22	17	5	0	618°C (1145°F)	651°C (1205°F)	651°C - 729°C (1205°F - 1345°F)	BAg-7	BAg-7	AMS 4763	4.85 Tr Oz/in^3	67.2	29.9	16.8

XuperBraze Fluxes

Quality fluxes prevent surface oxidation as the temperature rises during the brazing process. Below are some key features of Castolin Eutectic’s fluxes.

- Reduce surface tension between the alloy and base metal
- Promote surface alloying by controlled diffusion
- Protect from atmospheric contamination
- Ensure good capillary action and flowability
- Have the right consistency for easy application

XuperBraze 100

XuperBraze 100 is a creamy, water base general purpose silver brazing paste flux for use on all metals except aluminum, magnesium or titanium. It is formulated for use with torch, induction, furnace, resistance, dip and other heating methods.

Active temperature range: 1100°F - 1600°F (~ 593°C - 871°C)

Specifications: AWS Brazing Flux FB3-A
OF499c Type B
AMS 3410

XuperBraze 100 H

XuperBraze 100 H is a creamy, boron modified water base silver brazing paste flux for use on all metals except aluminum, magnesium or titanium. It is formulated for use with torch, induction, furnace, resistance, dip and other heating methods.

Active temperature range: 1100°F - 1750°F (~ 593°C - 954°C)

Specifications: AWS Brazing Flux FB3-C
OF499c Type B
AMS 3411

FEATURES OF XUPER BRAZE 100 AND 100 H

- Residues are water soluble
- Use when brazing with the BAg & BCuP group alloys
- No flash point- water-base
- Form: Ultra creamy paste

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Castolin Eutectic®
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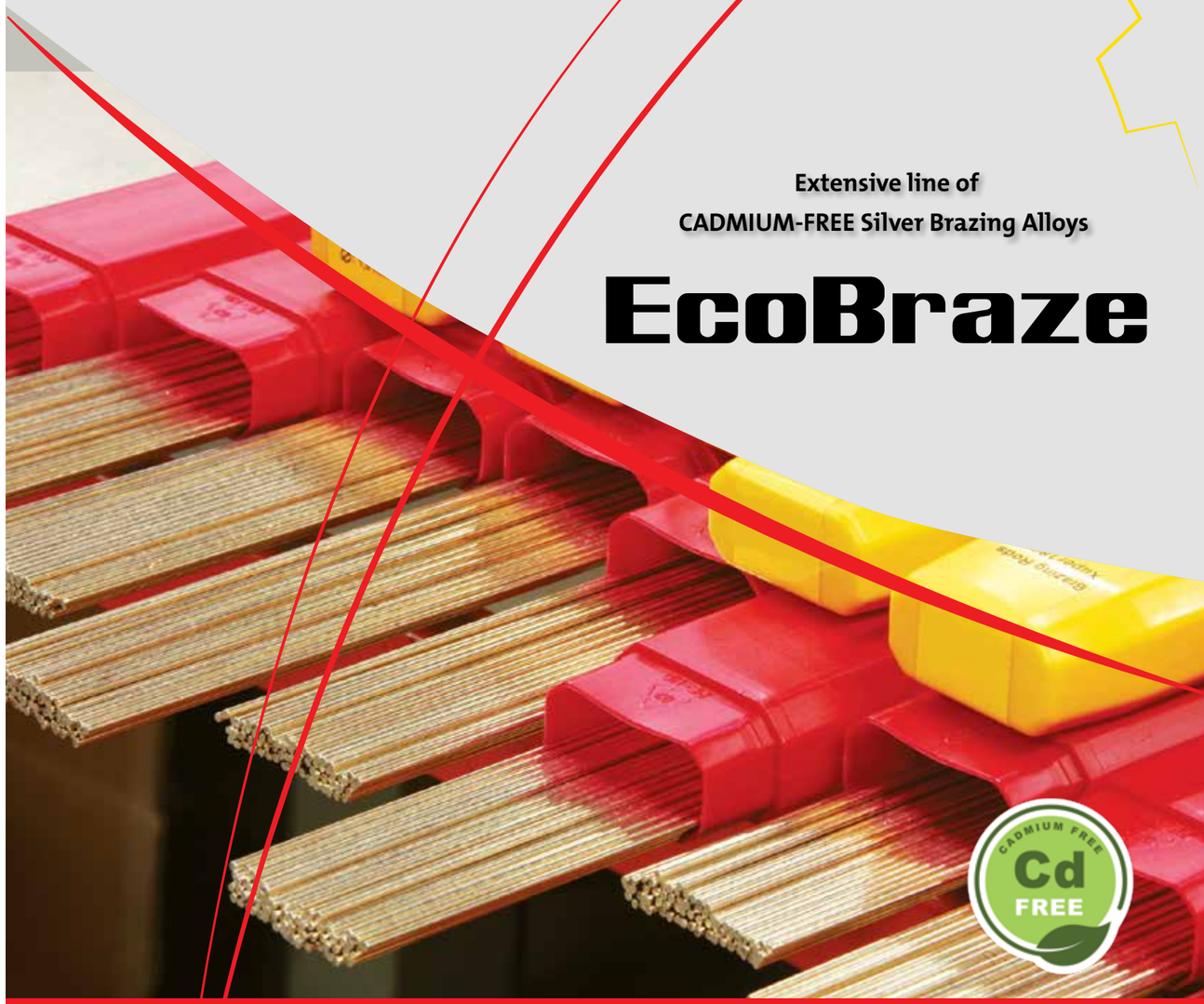
Extensive line of
CADMIUM-FREE Silver Brazing Alloys

EcoBraze



- Low temperature process allows for joining metals with different melting temperatures and thicknesses, while keeping geometries and physical properties
- Minimize the ecological impact of brazing operations with a vast line of cadmium-free brazing products
- Comply with sustainable environmental and health & safety regulations

EcoBraze

A Cadmium-free product line for all your silver alloy brazing needs

EcoBraze 38230

EcoBraze 38230 is a good general purpose, intermediate temperature brazing alloy for use on copper, brass, nickel-silver, bronze, mild steel, and other nonferrous base metals melting above 816°C (1500°F). This light yellow color (as brazed) cadmium-free filler metal is used in brazing nickel-silver hollow knife handles and electrical equipment. The long melting range of this filler metal make it useful when wide gap joints are brazed and in producing large joint fillets to reduce the notch effect on stressed assemblies. Where higher brazing temperatures are permissible, the lower silver content of this filler metal affords savings.

Nominal Composition					Soli-dus	Liquidus	Recommended Brazing Range	AWS A 5.8	Fed. Spec. QQ-B-654A	SAE/ Aeronautical Mat'l Spec.	Density	Approximate Wire Length (In / Troy Oz)		
Ag	Cu	Zn	Sn	Ni								1/16"	3/32"	1/8"
30	38	32	0	0	676°C (1250°F)	765°C (1410°F)	765°C - 826°C (1410°F - 1520°F)	BAg-20	NA	NA	4.547 Tr Oz/in³	71.7	31.9	17.9

EcoBraze 38233

A special brazing alloy developed by Eutectic Corporation to afford the economy of a 30 % silver, copper, zinc alloy but the performance of the other silver, copper, zinc brazing alloys containing higher silver contents (up to 45 %). Its' balanced copper / zinc content provide good ductility and fluid flow, yet the joint gapping capabilities of EcoBraze 38233 are beyond .005". This brazing alloy is excellent for use on commercial tubing and fittings (HVAC), brass lamps, band instruments, and electrical components. EcoBraze 38233 works well on steels and stainless steels, copper, brass, bronze, and nickel silver.

Nominal Composition					Soli-dus	Liquidus	Recommended Brazing Range	AWS A 5.8	Fed. Spec. QQ-B-654A	SAE/ Aeronautical Mat'l Spec.	Density	Approximate Wire Length (In / Troy Oz)		
Ag	Cu	Zn	Sn	Ni								1/16"	3/32"	1/8"
33	34	33	0	0	700°C (1292°F)	740°C (1364°F)	740°C - 782°C (1364°F - 1440°F)	NA	NA	NA	4.6 Tr Oz/in³	71.1	31.6	17.8

EcoBraze 38235

EcoBraze 38235 is a good general purpose, intermediate temperature brazing alloy for use on copper, brass, bronze, mild steel, stainless steel, nickel alloys or combinations of these alloys. This light yellow color (as brazed) cadmium-free brazing alloy is useful in bridging gaps where poor fit-up and non-uniform clearances cannot be avoided. Used in the assembly of tubes for the refrigeration industry.

Nominal Composition					Soli-dus	Liquidus	Recommended Brazing Range	AWS A 5.8	Fed. Spec. QQ-B-654A	SAE/ Aeronautical Mat'l Spec.	Density	Approximate Wire Length (In / Troy Oz)		
Ag	Cu	Zn	Sn	Ni								1/16"	3/32"	1/8"
35	32	33	0	0	685°C (1265°F)	754°C (1390°F)	754°C - 815°C (1390°F - 1500°F)	BAg-35	NA	NA	4.568 Tr Oz/in³	70	31.4	17.7

EcoBraze 38240

EcoBraze 38240 is a cadmium-free intermediate temperature brazing alloy for use on small tungsten carbides, stainless steels, mild steels, cast and malleable irons and various non-ferrous alloys. This light yellow color (as brazed) brazing alloy is useful for brazing stainless steel food containers and food handling equipment. Since it has a fairly long melting range (90.5°C), it is preferable to use this filler metal where the assembly joint can be rapidly heated. This nickel containing filler metal offers added joint corrosion resistance compared to other non-nickel containing cadmium-free filler metals.

Nominal Composition					Soli-dus	Liquidus	Recommended Brazing Range	AWS A 5.8	Fed. Spec. QQ-B-654A	SAE/ Aeronautical Mat'l Spec.	Density	Approximate Wire Length (In / Troy Oz)		
Ag	Cu	Zn	Sn	Ni								1/16"	3/32"	1/8"
40	30	28	0	2	671°C (1240°F)	779°C (1435°F)	779°C - 837°C (1435°F - 1540°F)	BAg-4	NA	NA	4.658 Tr Oz/in³	70	31.1	17.5

EcoBraze 38245

EcoBraze 38245 is a general purpose, low temperature filler metal used in cadmium-free brazing. This pale yellow color (as brazed) brazing alloy offers an excellent compromise between low temperature brazing and moderate silver content. EcoBraze 38245 behaves similar to EcoBraze 38256 - except for color - and is suitable for narrow gap applications. It is excellent for dissimilar base metals and is used for numerous applications in the refrigeration and air conditioning industries.

Nominal Composition					Soli-dus	Liquidus	Recommended Brazing Range	AWS A 5.8	Fed. Spec. QQ-B-654A	SAE/ Aeronautical Mat'l Spec.	Density	Approximate Wire Length (In / Troy Oz)		
Ag	Cu	Zn	Sn	Ni								1/16"	3/32"	1/8"
45	27	25	3	0	640°C (1184°F)	680°C (1256°F)	680°C - 760°C (1256°F - 1400°F)	BAg-36	NA	NA	4.696 Tr Oz/in³	69.4	30.9	17.4

EcoBraze 38249

A cadmium-free low temperature brazing alloy filler metal used extensively for brazing tungsten carbide inserts to cutting tools and rock drills. It can be used for joining all types of steels and stainless steels. It exhibits excellent wetting on tungsten carbide or tungsten carbide with moderate additions of titanium carbide, tantalum carbide, and niobium carbide in a cobalt or nickel binder. Because of its high manganese content, it may tend to liquate (separate into low and high melting constituents), which can be mitigated by rapidly heating the joint assembly through its melting point. In furnace brazing, EcoBraze 38249 works best when it is pre - placed in the joint area in the form of a shim. Carbide brazing test results using this alloy are excellent. In equivalent destructive tests, EcoBraze 38249 yields the same results as the old traditional 50% silver, cadmium/nickel alloy.

Nominal Composition					Soli-dus	Liquidus	Recommended Brazing Range	AWS A 5.8	Fed. Spec. QQ-B-654A	SAE/ Aeronautical Mat'l Spec.	Density	Approximate Wire Length (In / Troy Oz)		
Ag	Cu	Zn	Sn	Ni								1/16"	3/32"	1/8"
49	16	23	7.5	4.5	682°C (1260°F)	699°C (1290°F)	699°C - 760°C (1290°F - 1400°F)	BAg-22	NA	NA	4.7 Tr Oz/in³	69.5	31	17.5

EcoBraze 38250

EcoBraze 38250 readily wets nickel and iron. This white color (as brazed) brazing alloy is recommended for joining 300 series stainless steel and will retard interface corrosion. The presence of nickel aids in the joining of small tungsten carbide inserts in cutting tools. Because EcoBraze 38250 is a cadmium-free alloy, it can be safely used on food handling equipment and medical and dental utensils. This nickel containing filler metal offers added joint corrosion resistance compared to other non-nickel containing cadmium-free filler metals.

Nominal Composition					Soli-dus	Liquidus	Recommended Brazing Range	AWS A 5.8	Fed. Spec. QQ-B-654A	SAE/ Aeronautical Mat'l Spec.	Density	Approximate Wire Length (In / Troy Oz)		
Ag	Cu	Zn	Sn	Ni								1/16"	3/32"	1/8"
50	20	28	0	2	660°C (1220°F)	707°C (1305°F)	707°C - 785°C (1305°F - 1445°F)	BAg-24	NA	NA	4.96 Tr Oz/in³	69	30.7	17.2

EcoBraze 38255

EcoBraze 38255 represents an improvement over the 56 % silver BAg-7 brazing alloy. It is cadmium free and capable of quickly filling long, narrow joints. EcoBraze 38255 offers improved joint strength and gaping capability over BAg-7, without sacrificing working temperature and corrosion resistance. It is excellent when low temperature brazing, joint fits of (.001" to .005"), and rapid uniform fluid flow is required. It works well on stainless steels, nickels, steels, brasses, coppers, and small carbides.

Nominal Composition					Soli-dus	Liquidus	Recommended Brazing Range	AWS A 5.8	Fed. Spec. QQ-B-654A	SAE/ Aeronautical Mat'l Spec.	Density	Approximate Wire Length (In / Troy Oz)		
Ag	Cu	Zn	Sn	Ni								1/16"	3/32"	1/8"
55	21	22	2	0.1	629°C (1165°F)	660°C (1220°F)	1220°C - 1340°C (660°F - 727°F)	NA	NA	NA	4.81 Tr Oz/in³	67	29.5	16

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