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### Item # BrazeIt A-38T, Cadmium Free Brazing Alloys

A general purpose brazing alloy providing good flow and ductility. Forms good fillets and is an economical alternative to other cadmium-free alloys. BrazeIt A-38T is used for brazing ferrous metals, copper, copper alloys, nickel, nickel alloys and combinations of these metals. The tin content provides good wetting on many difficult wet metals such as stainless steel and tungsten carbide. This alloy, being free of Zn or Cd, preferred for long heating cycles and is suitable for use in a controlled atmosphere brazing without flux. The greatest use of this alloy is during furnace brazing, although it is also suitable for other brazing procedures.

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#### Nominal Composition

Silver (Ag)	38.0 ± 1.0%
Copper (Cu)	32.0 ± 1.0%
Zinc (Zn)	28.0 ± 2.0 %
Nickel (Ni)	0
Tin (Sn)	2
Total Other Elements	0.15% Max.

#### Specifications

Melting Pt.	1200 °F 650 °C
Flow Pt.	1330 °F 720 °C
MBT <sup>1</sup>	1500
AWS A5.8	BAG-34
ASME	NA
AMS	4761
Resale Options <sup>2</sup>	Brazing Paste Brazing Rod Brazing Strip Brazing wire
Preform Options	Brazing Discs Brazing Rings Brazing Washers Custom Designs Cut-Offs Edgewounds
Approx. Wire Length (BCuP/lb.) (BAg/Tr.oz)	275 in @ 0.031 diameter 30 in @ 0.093 diameter 65 in @ 0.062 diameter

<sup>1</sup> Recommended Brazing Temperature

<sup>2</sup> Brazing Wire & Brazing Strip - Spooling Available  
 Brazing Rod - Flux Coating Available

#### Physical Constants

<b>Solidus</b>	1200 °F 649 °C
<b>Liquidus</b>	1330 °F 721 °C
<b>Brazing Range</b>	1330 to 1550 °F 721 to 843 °C
<b>Specific Gravity</b>	9.05
<b>Density</b>	4.77 T.oz./cu.in.
<b>Electrical Conductivity</b>	18 % IACS
<b>Electrical Resistivity</b>	9.50 Micro ohm-cm
<b>Color</b>	Pale Yellow

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### Properties of Brazed Joints

Generally, the joint strength using Brazeit A-38T will surpass the strengths of the base metals. Strength is a function of the base metals being joined, type of joint, design of joint, joint clearances and brazing procedures. The recommended maximum operating temperature for Brazeit A-38T is up to 400 °F in continuous service and up to 600 °F in intermittent service. Where improved corrosion resistance is needed, Brazeit A-50N and Brazeit A-40N2 are recommended over silver base filler metals not containing nickel.

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### Applications

Typical applications are the brazing of ferrous, nonferrous and dissimilar metals and alloys with close joint clearances.

Similar melt temperatures to cadmium alloys Sil. 30 and Sil. 35. Suitable for ferrous and non ferrous.

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### Safety Information

It is essential that adequate ventilation be provided so that personnel will not inhale gases and fumes while brazing. The operation and maintenance of brazing equipment or facility should conform to the provisions of American National Standard (ANSI) Z49.1, "Safety in Welding and Cutting". For more complete information refer to the Material Safety Data Sheet for Brazeit A-38T.

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### Available Forms

Standard forms of Brazeit A-38T are brazing wire and brazing preforms.