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**Item # BrazeIt A-56T, Cadmium Free Brazing Alloys**

A highly effective substitute for Brazeit #45. It has the lowest flow point of the cadmium-free brazing alloys and offers outstanding flow and ductility. Great color match for stainless steel and silver. Brazeit A-56T has the lowest brazing temperature, best wetting, and best flow of all the cadmium-free brazing alloys. It has a slight plastic range which may be noticed during melting on some applications. Its low zinc content minimizes problems due to excessive heating (as in furnace brazing) or due to excessive heating (as by less skilled operators). For this reason, it is often preferred over Brazeit 35, Brazeit 45, or Brazeit 50 for furnace brazing, or any brazing operation where the alloy is molten for an extended period of time. It is often selected for use on silver or stainless steel due to its excellent color match. Brazeit A-56T is often used because it does not cause stress cracking of nickel, nickel alloys, or stainless steel as readily as the other low melting alloys. The fact that Brazeit A-56T contains no cadmium has led to its use on food handling equipment where cadmium can be hazardous and its use is prohibited by law. Operating temperature for Brazeit A-56T is up to 400 ºF in continuous service and up to 600 ºF in intermittent service. Where improved corrosion resistance is needed, Brazeit 50N and Brazeit A-40N2 are recommended over silver based brazing alloys not containing nickel.

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## Nominal Composition

| | |
|---|---|
| **Silver (Ag)** | 56.0 ± 1.0% |
| **Copper (Cu)** | 22.0 ± 1.0% |
| **Zinc (Zn)** | 17.0 ± 2.0% |
| **Nickel (Ni)** | 0 |
| **Tin (Sn)** | 5.0 ± 0.5% |
| **Total Other Elements** | 0.15% Max. |

## Specifications

| | |
|---|---|
| **Melting Pt.** | 1145 ºF<br>618 ºC |
| **Flow Pt.** | 1205 ºF<br>652 ºC |
| **MBT**[1] | 1400 |
| **AWS A5.8** | BAg-7 |
| **ASME** | BAg-7 |
| **AMS** | BAg-7 |
| **Resale Options**[2] | Brazing Rod<br>Brazing Strip<br>Brazing wire |
| **Preform Options** | Brazing Discs<br>Brazing Rings<br>Brazing Washers<br>Custom Designs<br>Cut Offs<br>Edgewounds |
| **Approx. Wire Length (BCuP/lb.)<br>(BAg/Tr.oz)** | 265 in; 0.031 diameter<br>29 in; 0.093 diameter<br>65 in; 0.062 diameter |

[1] Recommended Brazing Temperature

[2] Brazing Wire & Brazing Strip - Spooling Available

Brazing Rod - Flux Coating Available

## Physical Constants

| | |
|---|---|
| **Solidus** | 1145 ºF<br>618 ºC |
| **Liquidus** | 1205 ºF<br>652 ºC |
| **Brazing Range** | 1205 to 1400 ºF<br>652 to 760 ºC |
| **Specific Gravity** | 9.49 |
| **Density** | 4.96 T.oz./cu.in. |
| **Electrical Conductivity** | 11.9 % IACS |
| **Electrical Resistivity** | 14.5 Micro ohm-cm |
| **Color** | White |

## Applications

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

Excellent replacement to cadmium containing alloys when tow melt temperature is required. Good corrosion properties Color match to stainless.

## 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-56T.

## Available Forms

Standard forms for Brazeit A-56T are brazing wire, brazing strip, and brazing preforms.