

## Technical data

### Silver brazing filler metal

#### Argo-braze™ 63V – Silver brazing filler metal

#### Product description

Argo-braze™ 63V is a silver-copper-indium brazing filler metal. It is manufactured only as a vacuum tube grade material with low and controlled levels of volatile impurities. The indium content of this filler metal reduces the alloy's melting temperature and gives it improved wetting on ferrous parent metals over the straight silver-copper filler metal Argo-braze™ 72V. The alloy is intended for use in fluxless atmosphere (reducing or inert gas) or vacuum brazing applications. Argo-braze™ 63V is, however, prone to liquate (separate into low and high melting constituents) if it is heated slowly through its melting range. For this reason rapid heating methods should be employed wherever possible.

This filler metal is typically used for brazing vacuum tube type components and for the brazing of metallised ceramics in vacuum tube devices or in the production of ceramic to metal seals. Where ceramics are being brazed to a low expansion nickel alloy care should be taken (nickel plating / stress relieving) to prevent intergranular penetration (liquid metal stress cracking) of the nickel alloy.

Argo-braze™ 63V can be used as the last stage in a multi-step, sequential brazing operation with high melting point filler metals like Argo-braze™ 72V, Pallabraze™ 810 etc.

Formerly this filler metal was called IN10.

**Composition:** 63%Ag, 27%Cu, 10 In%

**Conforms to:** JM Specification

**Melting range:** 685-730 °C

#### Uses for this product

Argo-braze™ 63V is used for brazing components for vacuum tube devices and ceramic to metal seals.

#### Conditions for use

This product can be used to braze in hydrogen, an inert atmosphere or in a vacuum without the need for a flux. When vacuum brazing a partial pressure brazing technique should be used to prevent the vaporisation of silver within the alloy.

#### Product availability

Special order only.

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