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Technical data

Silver brazing filler metal

Argo-braze™ 72V– Silver brazing filler metal

Product description

Argo-braze™ 72V is a silver-copper brazing filler metal with a eutectic composition, and has a melting point of 778C unlike most other brazing filler metals that have a melting range.

It is manufactured to meet vacuum tube grade requirements with low and controlled levels of volatile impurities. Consequently it can be used on vacuum tube devices that operate at moderate temperatures and where volatile elements might be detrimental to the performance of the component.

Having a single melting temperature of 778˚C makes the alloy very free flowing and able to penetrate narrow joint gaps. On silver and copper parent materials the flow of the alloy is reduced and the re-melt temperature is increased due to the filler metal taking silver or copper into solution when molten. Exercising careful control of the brazing cycle brazing temperatures and time at temperature can reduce this effect.

Argo-braze™ 72V shows only limited wetting on iron and nickel base metals and on cemented tungsten carbides. 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™ 72V is standardly supplied as EN 1044 vacuum grade V1, but it can also be supplied in the vacuum grade V2, both of which are suitable for vacuum tube applications. The alloy can also be supplied as the non-vacuum tube grade material EN 1044 AG401.

Argo-braze™ 72V was formerly known as Silver-Copper Eutectic™.

Composition: 72%Ag, 28%Cu

Conforms to: EN1044 AG401, V1 or V2 grades, AWS A5-8 BAg-8, ISO 17672:2010 Ag 272 V1

Melting point: 778˚C

Uses for this product

Argo-braze™ 72V is used for brazing silver, copper and nickel based alloys as well as metalised ceramics. Typical applications include components for vacuum tube devices.

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 the silver within the alloy.

Product availability

Special order only.

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