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Technical data

Silver brazing filler metal

Argo-braze™ 54 – Silver brazing filler metal

Product description

Argo-braze™ 54 is a specialised cadmium free silver brazing filler metal. It is mainly used for brazing austenitic stainless steel joints that will be required to work at elevated temperatures, such as jet engine components.

It can be used to join both ferrous and non-ferrous metals and due to its low zinc content can be used in furnace brazing applications.

It has a long melting range and is useful as a gap-filling alloy producing large fillets. It 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. The long melting range of the filler metal can prove useful when faced with joints having large and variable joint clearances as the very sluggish flow properties of the filler metal facilitate the bridging of the large gaps.

Argo-braze™ 54 will fill joint gaps of between 0.1mm and 0.25mm at brazing temperature.

Composition: 54%Ag, 40%Cu, 5%Zn, 1%Ni

Conforms to: AWS A5.8 Bag-13, AMS 4772, MSRR 9500/ 105, (formerly known as DHE 310), ISO 17672:2010 Ag 454

Melting range: 718-857˚C

Uses for this product

This alloy is not widely used in Europe. It has been used particularly to join stainless steels components for aircraft, jet engine or military applications such as hydraulic tubing components. In these applications the brazing filler metal is reported to retain its strength at elevated temperatures showing good results on stainless steel up to 350˚C.

Conditions for use

The product may be used in an atmosphere furnace application with a dry reducing atmosphere high in hydrogen. However, a flux may be needed to achieve successful wetting in such an atmosphere.

For brazing in air the product should be used in conjunction with a high temperature flux such as Tenacity™ No. 5 Flux Powder. A rapid heating method such as induction or fixed burner heating is recommended to avoid the problems of liquation.

Product availability

Special order only.

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