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Technical data

Silver brazing filler metal

Argo-braze™ 56 – Silver brazing filler metal

Product description

Argo-braze™ 56 is a specialised silver-copper-indium-nickel brazing filler metal. It is used principally for brazing stainless steel joints or joints between stainless steel and another parent material that in service will be subject to attack by interfacial corrosion, commonly called crevice corrosion.

Where a joint involving a stainless steel member will be exposed to damp or wet aqueous based service environments the joint will be susceptible to interfacial corrosion, a unique and rapid form of corrosive attack. The name interfacial corrosion is derived from the failure mechanism, which involves the corroding away of the bonding layer (the interface layer) created between the filler metal and the parent material. It is common for joints that have failed due to interfacial corrosion to show a complete separation of the filler metal from the parent material and this can occur within a period as short as 3 months for immersed joints.

Argo-braze™ 56 has a long melting range (600 - 711˚C), flows relatively poorly when molten, is useful as a gap-filling alloy and produces 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.

Typical joint gaps at brazing temperature should be 0.1-0.2mm.

Composition: 56%Ag, 27%Cu, 14.5%In, 2.5%Ni

Conforms to: ISO 17672: 2016 Ag 456a

Melting range: 611-700˚C

Uses for this product

Argo-braze™ 56 is used principally for brazing joints involving a stainless steel member in conditions where interfacial corrosion is liable to be a service hazard. It has been found to offer near complete protection from interfacial corrosion on 300 series austenitic stainless steels, while offering a very high level of protection on the martensitic 403,410, 440A grades and the ferritic 430 grade.

Conditions for use

On small components Easy-flo™ Flux Paste or Mattiflux™ 100 Flux Paste are recommended. Where prolonged heating is required Tenacity™ No. 5 Flux should be used.

Please note: - boron containing fluxes such as Tenacity™ No. 5A, Tenacity™ No. 6 and Mattiflux™ 3A should be avoided as boron is known to increase the risk of interfacial corrosion.

Product availability

Brazing rods	1.5mm, 2mm, 2.5mm, 3mm
Wire	0.5mm to 3mm
Other forms	On request

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