



Argo-braze™ 85 – Silver Brazing Filler Metal

Argo-braze™ 85 is a highly specialised free flowing silver-manganese brazing filler metal. The product is suitable for brazing joints that will continuously operate at temperatures up to 260°C or in applications involving short time exposure to service temperatures of 425°C.

Being a copper free filler metal it is also suitable for use in applications involving contact with ammonia, such as the brazing of steel pipe joints in refrigeration systems.

It can be used to braze a wide range of materials - carbon steels, stainless steel, nickel alloys, cobalt based hard / wear resistant metals and tungsten carbide. It should be noted that joints produced by the alloy on stainless steel may not be resistant to attack by interfacial corrosion.

Composition: 85%Ag, 15%Mn

Conforms to: EN 1044 1999 AG501, AMS 4766, AWS BAg-23, ISO 17672:2010 Ag 485

Melting range: 960-970°C

Uses for This Product

This product can be used for the vacuum brazing of steam turbine blade components where elevated temperature strength is required and brazing temperatures are compatible with the heat treatment requirements of the parent material.

Conditions for Use

Due to its high brazing temperature and manganese content Argo-braze™ 85 presents difficulties for flame brazing applications in air with a flux and as such the technique is only likely to be successful on small parts that can be heated rapidly to brazing temperature. Induction heating in air is a more favourable heating method due to the speed of heating that can be achieved. In both cases Tenacity™ No.125 Flux should be used as the flux.

While hydrogen based reducing atmosphere brazing is possible an extremely dry atmosphere is required to ensure filler metal wetting. Where the atmosphere is not sufficiently dry to allow filler metal wetting a flux can be used to promote wetting. When vacuum brazing with the product a partial pressure brazing technique needs to be used to suppress the vaporisation of both the silver and manganese content of the alloy.

Product Availability

Special order only

Johnson Matthey Plc cannot anticipate all conditions under which this information and our products or the products of other manufacturers in combination with our products will be used. This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is given in good faith, being based on the latest information available to Johnson Matthey Plc and is, to the best of Johnson Matthey Plc's knowledge and belief, accurate and reliable at the time of preparation. However, no representation, warranty or guarantee is made as to the accuracy or completeness of the information and Johnson Matthey Plc assumes no responsibility therefore and disclaims any liability for any loss, damage or injury howsoever arising (including in respect of any claim brought by any third party) incurred using this information. The product is supplied on the condition that the user accepts responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use. Freedom from patent or any other proprietary rights of any third party must not be assumed. The text and images on this document are Copyright and property of Johnson Matthey.

This datasheet may only be reproduced as information, for use with or for resale of Johnson Matthey products. The JM logo®, Johnson Matthey® name and product names referred to in this document are trademarks of Johnson Matthey. Easy-flo® and Silver-flo® are registered to JM in the EU. Sil-fos™ is registered to JM in the UK and certain other countries but is marketed as Mattiphos™ in Germany and the USA.



Johnson Matthey

Metal Joining York Way, Royston, Hertfordshire, SG8 5HJ, UK

Telephone: +44 (0) 1763 253200

Fax: +44 (0) 1763 253168

email: mj@matthey.com

[www: jm-metaljoining.com](http://www.jm-metaljoining.com)