

Technical data

Silver brazing filler metal

Silver-flo™ 55 – Cadmium free silver brazing filler metal

Product description

Silver-flo™ 55 is a cadmium free silver brazing filler metal. It combines a low brazing temperature with a short melting range. Silver-flo™ 55 is very free flowing and produces neat joints with small fillets. These characteristics make Silver-flo™ 55 an excellent general-purpose silver brazing filler metal. In many countries it is accepted as the best cadmium-free alternative to the low-melting cadmium containing filler metals. For example, it is used as a substitute for alloys such as Easy-flo™ and Easy-flo™ No.2.

Joints made with Silver-flo™ 55 are suitable for seawater applications, being resistant to dezincification. The optimum joint gap for this filler metal at brazing temperature is normally 0.05-0.15mm.

Composition: 55%Ag, 21%Cu, 22%Zn, 2Sn%

Specification: ISO 17672 Ag 155, EN 1044 1999 AG103, MSRR 9500/708

Melting range: 630-660 °C

Uses for this product

Silver-flo™ 55 can be used to join all the common engineering materials (excluding aluminium) such as copper, copper alloys (including, brasses, bronzes, gun metal, nickel silvers, aluminium bronze, copper nickel), steels including, mild, carbon, tool steel, stainless steels, low alloy steel), tungsten carbide and PCD segments. On large or difficult to wet tungsten carbide pieces specialised silver brazing filler metals containing nickel / manganese are often preferred.

Conditions for use

This filler metal is mainly used for brazing in air with a flux. In most cases Easy-flo™ Flux can be used in conjunction with Silver-flo™ 55. However, flux selection is application dependent. Please refer to JM technical department or flux product datasheets before selecting a flux.

Product availability

Rod	1mm, 1.5mm, 2mm, 2.5mm, 3mm, 4mm
Flux coated rod	1.5mm, 2mm, 2.5mm
Wire	0.5mm, 0.75mm, 0.9mm, 1mm, 1.2mm, 1.5mm, 2mm
Strip	5 x 1mm, 3 x 1mm, 1.5 x 1mm
Foil	80 x 0.25mm, 80 x 0.12mm, 12.7 x 0.127mm, 25 x 0.25mm
Braze-pastes	On request
Others	Rings, Preformed Shapes

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 PLC, Platinum Group Metal Services, Orchard Road, Royston, Herts, SG8 5HE, UK Rev.27/01/25.

