



A5™ – Soft Soldering Alloy

Johnson Matthey's A5™ is a 5% silver-lead soldering alloy. It offers increased strength and creep resistance at elevated temperatures over conventional tin-lead solders. The silver addition improves wetting of A5™ onto copper and copper-based alloys and to a lesser extent on steels.

Flow of the alloy is not as good as tin lead alloys and the alloy has a long melting range. The optimum joint gap for A5™ is 0.2mm.

Composition: 5% Ag, 95% Pb

Conforms to: BS.EN 29453 No.33, EN ISO 9453:2006 Alloy No. 182

Melting range: 304-370°C

Uses for This Product

A5™ is specified where its increased strength and creep resistance at elevated temperature is an advantage. With the correct choice of flux this alloy will join copper and copper alloys, carbon steels and stainless steels.

The use of lead in products is increasingly recognised as being undesirable both in terms of the long-term environmental impact and recyclability of products. Consequently the use of lead containing solders will continue to decline.

Directive 2000/53/EC of the European Parliament and of the Council of 18 September 2000 on end-of-life vehicles (ELV), directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) and directive 2002/96/EC of the European Parliament and of the Council of 27 January 2003 on waste electrical and electronic equipment (WEEE) prevent the use of certain hazardous substances including lead containing materials.

The use of lead in potable water systems has also been prohibited in Europe and in many countries worldwide. Despite these considerations many companies continue to use lead containing solders.

Lead free alternatives should be considered wherever possible.

Conditions for Use

With the correct choice of flux this alloy will join copper and copper alloys, carbon steels and stainless steels. A5™ supplied in a solid form and in this case a suitable flux should be selected from the list below.

Flux	Recommended for use on	Corrosive/ Non-corrosive	Working Range °C	Product Availability
Soft Solder Flux No. 1S™	Carbon steel / stainless steel	Corrosive	350°C	1 litre container
Soft Solder Flux No. 2S™	Copper / brass	Non Corrosive	350°C	0.5 litre container
Soft Solder Flux No. 3S™	Copper / brass / carbon steel Stainless steel	Corrosive	350°C	1kg container

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.

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