



## LM5™ – Soft Soldering Alloy

Johnson Matthey's LM5™ is a 5% silver-cadmium soldering alloy. Today concerns over health and safety and long term effects to the environment mean that this material is rarely specified.

LM5™ offers increased strength and creep resistance at elevated temperatures over conventional solders. It exhibits reasonable wetting onto copper and copper-based alloys and to a lesser extent on steels. Flow of the alloy is not as good as tin-copper soldering alloys.

Composition:	5% Ag, 95% Cd
Conforms to:	Johnson Matthey Specification
Melting range:	338-390°C

### Uses for This Product

LM5™ is only specified where its increased strength and creep resistance at elevated temperature are an advantage. With the correct choice of flux this alloy will join copper and copper alloys.

The use of lead and cadmium in products is increasingly recognised as being undesirable both in terms of the long-term environmental impact and recyclability of products.

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.

### Conditions for Use

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 1S™	Carbon steel / stainless steel	Corrosive	350°C	1 litre container
Soft Solder Flux 2S™	Copper / brass	Intermediate	350°C	0.5 litre container
PA™ Soft Solder Flux	Copper / brass / carbon steel Stainless steel	Corrosive	350°C	1kg container

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Health and safety issues associated with the incorrect use of cadmium containing solders and disposal of cadmium containing products are widely recognised.

Cadmium containing soldering materials should not be used:-

1. Without first referring to the relevant Health and Safety Datasheet MSDS.
2. Without suitable fume extraction.
3. By operators untrained in the correct brazing technique.

Johnson Matthey recommends cadmium-free and lead-free products wherever possible. Unless a sound technical reason exists for doing otherwise we will not recommend the use of cadmium or lead containing materials. Please consult Johnson Matthey's Technical Department for advice on cadmium or lead free products.

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### Product Availability

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Limited availability only.

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