



Sil-fos™ foil

Sil-fos™ is a silver-phosphorous-copper brazing filler metal supplied in the form of a foil. It is used to braze copper, in air without the use of a flux.

Sil-fos™ has extensive electrical engineering applications where it is used to make electrically conductive joints. With an electrical conductivity of approximately 11% I.A.C.S. It is widely used to make copper connections (typically tape to tape) in buried earthing systems.

Joint Preparation

The two conductors (copper tapes) to be jointed should overlap a distance at least equal to the width of the thinnest conductor.

E.g. 50 mm x 6 mm to 25 mm x 3 mm the overlap should be at least 25 mm.

The mating faces of joints should be as flat as practicable, they should be wire brushed until the two surfaces are bright and slightly roughened.

Emery paper or sand blasting does not provide a suitable surface.

The preferred heat source is Oxy-acetylene, if unavailable Propane should be used.

Jointing Procedure

The two tapes to be jointed should be clamped together with a suitable length of Sil-fos™ Foil between the mating faces.

The joint is rapidly heated to approximately 700 °C at which time the foil should be seen to flow. It is not good practice to keep the alloy molten for long periods.

Unsatisfactory joints should not be reheated, such joints should be re-made from scratch.

Joint Testing

Completed joints should be checked visually for signs of a witness around the perimeter of the joint.

To ensure satisfactory joints are achieved, a peel test should be carried out on a sample joint. There should be approximately 70% of the joint area covered in the filler metal.

Mechanical Specifications

Dimensions:	The foil is 50 mm wide, 0.12 mm thick and 8 m long.
Optimum joint gap:	0.05 - 0.2 mm
Composition:	15% Ag, 80% Cu, 5% P
Melting range:	644 - 800 °C
Conforms to:	EN 1044 1999 CP102, AWS A5.8 BCuP-5, ISO 17672 CuP 284



BS EN ISO 9001
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