

## The High Silver SilBRAZE Series

The alloys in this series represent general purpose alloys that can be used for brazing of low carbon and low alloy steels, copper and most copper alloys, nickel and nickel alloys, stainless steels (Refer Technical Information), tungsten carbide (Refer Technical Information). All the SilBRAZE alloys are cadmium free and pose very little health hazards in their use.

Fluxes required for all the above brazing applications and AGR Matthey fluxes are available for these purposes in the form of powders or pastes. Selection of the appropriate flux is based on matching the active range of the flux to the melting range of the filler metal – the flux has to be active at temperatures below the solidus of the filler metal and must remain active at least 50C above the filler metal liquidus. Flux-coated rods are also available in most of the alloys.

The alloys with melting ranges (difference between liquidus and solidus) greater than 50°C generally are suitable for filling larger gaps and forming large fillets, the ones with a shorter melting range (generally also quick flowing) are suitable for narrow, well-controlled joint gaps, forming neat joints with small fillets. The alloys with more than 55% silver are generally silvery in colour and provide a good colour match for stainless steel and nickel silver.

GENERAL PURPOSE ALLOYS		SPECIAL ALLOYS
SHORT MELTING RANGE	LONG MELTING RANGE	
SILBRAZE 56	SILBRAZE 40	SILBRAZE 56IN (Stainless steels)
SILBRAZE 55	SILBRAZE 39	SILBRAZE 49 (Tungsten carbides)
SILBRAZE 45	SILBRAZE 34	SILBRAZE 49LM (Tungsten carbides)
	SILBRAZE 30	

### CAUTIONS:

1. These alloys are not suitable for brazing low melting metals eg magnesium, aluminium alloys
2. Copper alloys containing more than 2% aluminium require special fluxes
3. For brazing stainless steels, please refer to Technical Data for stainless steel brazing.
4. Joints made using brazing alloys containing tin must not be quenched after brazing from temperatures over 300°C and are not recommended for joining materials with large differences in coefficients of thermal expansion.
5. The maximum continuous operating service temperatures of brazed assemblies using these alloys must not exceed 200°C.