



TECHNICAL INFORMATION SHEET

STAY SILV® 18M BRAZING FILLER METAL

CHEMICAL COMPOSITION%:

Silver	17.2 - 18.2
Phosphorus	5.75 - 5.85
Copper	Remainder
Other (Total)	0.15

TYPICAL PHYSICAL PROPERTIES:

Solidus	1190°F (643°C)
Liquidus	1331°F (722°C)
Density	4.27 (to/cu.in)
Specific gravity	8.80
Electrical conductivity	5.9 (% IACS)
Electrical resistivity	29.40 (microhm/cm)

BRAZING PROPERTIES:

Stay Silv 18M is lower phosphorus content version of Stay Silv 18. This provides a slightly wider melting range which makes it suitable for applications with marginal clearance. When heated to its liquidus, however, the alloy flows quickly into the capillary. Joint tolerances less than 0.005" are recommended.

Stay Silv 18M is an excellent replacement for higher silver content filler metals and is often used for brazing brass. Brazing brass or bronze requires use of Harris Stay Silv® white brazing flux.

Stay Silv 18M is not recommended for brazing steel or other ferrous base metals. The phosphorus content promotes formation of a low ductility intermetallic with the ferrous base metal.

CORROSION RESISTANCE

Generally similar to the copper base metal, but phosphorus containing alloys, including Stay Silv 18M should not be used if the braze is exposed to sulfur or sulfur compounds in service.

AVAILABLE FORMS

Standard wire diameters in coils, rods, spools, and preform rings.

RECOMMENDED FLUX:

No flux is required for copper brazing. For brazing brass or copper to brass use Stay-Silv® white flux.

SPECIFICATION COMPLIANCE:

Harris Products Group internal standard.

SAFETY INFORMATION:

WARNING: PROTECT yourself and others. Read and understand this information.

FUMES AND GASES can be hazardous to your health.

HEAT RAYS, (infrared radiation) from flame or hot metal can injure eyes.

- Before use, read and understand the manufacturer's instructions, Material Safety Data Sheets (MSDS), and your employer's safety practices.
- Keep your head out of fumes.
- Use enough ventilation, exhaust at the flame, or heat source, to keep fumes and gases from your breathing zone and the general area.
- Wear correct eye, ear, and body protection.
- See American National Standard Z49.1, *Safety in Welding, Cutting, and Allied Processes*, published by the American Welding Society, 8669 Doral Blvd., Doral, Florida 33166; OSHA Safety and Health Standards, available from the U.S. Government Office, Washington, DC 20402.

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Any suggestion of product applications or results is given without representation or warranty, either expressed or implied. Without exception or limitation, there are no warranties of merchantability or of fitness for particular purpose or application. The user must fully evaluate every process and application in all aspects, including suitability, compliance with applicable law and non-infringement of the rights of others. The Harris Products Group and its affiliates shall have no liability in respect thereof.

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