



## TECHNICAL INFORMATION SHEET

### SAFETY SILV® 50N Ag Clad™ STRIP BRAZING FILLER METAL

#### CHEMICAL COMPOSITION (braze cladding), %:

Silver	49.0-51.0
Zinc	27.0-29.0
Copper	21.0-23.0
Nickel	1.5-2.5
Other (Total)	0.15

#### PHYSICAL PROPERTIES (braze cladding):

Solidus 1220° F (660° C)  
Liquidus 1305° F (707° C)  
Density 4.83 troy ounces per cu.in.

#### BRAZING PROPERTIES:

Safety Silv 50N Ag-Clad is a three layer composite metal in a 1-2-1 ratio, (braze alloy, copper, braze alloy). Ag Clad 50N is frequently used to braze tungsten carbide inserts on larger size tools. In these applications the different coefficient of expansion between the dissimilar metals often leads to cracking. The center copper layer minimizes contraction stress set up during cooling to prevent this issue.

#### AVAILABLE FORMS

Strip

#### SPECIFICATION COMPLIANCE:

Braze alloy cladding conforms to AWS A5.8 Classification BAg-24.

#### RECOMMENDED FLUX:

Stay-Silv® white flux is suitable for some applications but Stay-Silv® black brazing flux is often used to braze tungsten carbide. It is especially helpful when heating cycles are prolonged or where heat is focused as in induction brazing. Harris ECO SMART™ Boric Acid Free High Heat flux, (powder and paste), is an excellent choice to promote sound brazed assemblies and comply with European REACH requirements.

#### 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

#### THE HARRIS PRODUCTS GROUP

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