



# Harris 45T Brazing Filler Metal

## TECHNICAL DATA SHEET

### BRAZING PROPERTIES

Harris 45T is a cadmium free alloy which has good flow and excellent fillet forming qualities. This alloy will produce high strength ductile joints in copper, brass, and steel.

### CHEMICAL COMPOSITION

Silver	45%
Copper	27%
Zinc	25,5%
Tin	2,5%
Other (total)	ISO Requirements



### TYPICAL PHYSICAL PROPERTIES

Solidus	640°C (1184°F)
Liquidus	680°C (1256°F)
Specific weight	9,2 g/cm <sup>3</sup>

### CORROSION RESISTANCE

Generally similar or higher than the copper base metal, but zinc containing alloys, including Harris 45T, should not be used if the braze is exposed to concentrated corrosive liquid for a long period of time.

### AVAILABLE FORMS

Standard wire diameters, preform rings, coils, strip, and flux coated rods.

### RECOMMENDED FLUX

Harris ECO SMART® boric acid free brazing fluxes (green or black) are an excellent choice to promote sound brazed assemblies, and comply with European REACH requirements. Stay Silv brazing fluxes (white or black) are also recommended.

All fluxes above are available in paste or powder form.

### SPECIFICATION COMPLIANCE

ISO 17672 Ag 145 Si ANSI/AWS A5.8 BAg-36, ASME SFA 5.8, National Sanitation Foundation Standard 51.



## **SAFETY INSTRUCTIONS**

**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.
  - **EN WARNING** Use of this product may produce fumes containing hazardous compounds. Use local exhaust to keep fumes and gases from all breathing zones.
- Use respirator unless exposure is below exposure limits. Infrared radiation from flame or hot metal can injure eyes. Overexposure to copper fumes may cause fever, chills, congestion and headaches. Consult SDS.

## **STATEMENT OF LIABILITY - DISCLAIMER**

Any suggestion of product applications or results is given without representation or warranty, either expressed or implied. The values of the chemical composition of the alloys are average values of the ranges given in the ISO standard. Actual values can only be found in the Inspection Certificate 3.1. or in the Material Test Report that can be obtained with a cost and upon request concerning one specific batch. 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 noninfringement of the rights of others. The Harris Products Group and its affiliates shall have no liability in respect thereof.