

# SILVER 15

ALLOY WITH 15% SILVER FOR HIGHLY RESISTANT WELDS WITH COPPER AND COPPER ALLOYS.

CLASSIFICATION A.W.S: BCuP-5

IDENTIFICATION: YELLOW TIP

**APPLICATIONS:** This is a high quality phosphor copper alloy due to its 15% silver content. Silver lowers its fusion temperature and increases ductility. Its main characteristics are: high mechanical resistance, capillary flow, good temperature and electric conductivity as well as a satisfactory degree of corrosion resistance except when the joint is exposed to high temperature sulphur fumes. It is mainly used to join copper, bronze and brass, specially where great capillarity and very little heat are required. It is also used to weld copper-nickel alloys as long as the nickel content does reach 30%. Silver 15 is used in oxyfuel, CO2 arch and TIG welding processes. It is used to weld copper, copper and brass, worn electric contacts, thin-wall pipes, refrigeration equipment, air conditioning equipment, sanitary facilities, gas pipelines, copper radiators, in the manufacture of cooking stoves, etc.

**CHARACTERISTICS:** This is an alloy to be used with a gas torch or with and induction oven, and with CO2 or inert shield gas welding processes. It works perfectly by capillarity on copper, brass and bronze. Excellent electric conductivity.

**PROCEDURE:** Clean the areas to be welded to remove dirt, scales, grease and rust. To achieve maximum resistance, parts to be welded should be fitted with a gap of about 0.127 mm (0.005"). Coat the joint area with S-200 flux. Set the gas torch to a neutral flame and heat the area evenly by waving the torch continuously. As soon as the flux starts melting down on the part surface, apply the alloy and keep on heating until the alloy flows through the joint. Once the weld has been finished, let the part cool down slowly and then, remove the flux traces. To restore the copper colour in the welded areas, dip the part in a solution of 10% sulphuric acid and rinse with hot water.

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|-------------------------------|---|
| <b>TENSILE RESISTANCE:</b>    | 3,500 A 3,800 KG./CM2 (50,000 A 54,000 PSI) |
| <b>WORKING TEMPERATURE:</b>   | 625°C                                       |
| <b>ELECTRIC CONDUCTIVITY:</b> | 99 %  |
| <b>KIND OF FLAME:</b>         | NEUTRAL                                     |

| FILLER METAL CHEMICAL ANALYSIS % |          |           | AVAILABLE SIZES |
|----------------------------------|----------|-----------|-----------------|
| <b>Cu</b>                        | <b>P</b> | <b>Ag</b> | 1.5 mm (1/16")  |
| 80.0                             | 5.0      | 15.0      | 2.4 mm (3/32")  |
|                                  |          |           | 3.2 mm (1/8")   |