

# TECHNICAL SHEET

## Ag81

### Product name

Ag81

### Class of product

Silver based brazing alloy, cadmium-free

### Corresponding standards

ISO 17672      ----  
EN 1044        ----  
AWS A5.8       ----  
DIN 8513       ----

### Nominal composition (weight %)

Ag:    81  
Cu:    13  
Zn:    6

### Physical and technical properties

Melting range (Solidus – Liquidus):      725 - 800 °C  
Brazing temperature:                         ~ 810 °C  
Density:    10 g/cm<sup>3</sup>  
Recommended joint gap:                     0,075 – 0,2 mm  
Continuous service joint operating temp.: -200 / +200 °C

### Range of application

Ag81 is a cadmium free, high silver brazing alloy, with high melting point.

It can be used to join ferrous, non ferrous and dissimilar metals and alloys and it is mainly used in the sector of silverware and jewellery.

Its low zinc content minimizes the potential problems arising from zinc vaporization, due to long heating cycles or due to excessive heating.

The alloy is also suitable for the step-brazing technique.

Brazing procedures range from manual to induction and oven techniques.

When brazing in an oxidizing environment a proper flux should be used.

Tensile strength of joints brazed with Ag81 will generally exceed base metals strength.

Joint strength is however a function of various factors, such as: type of base metals to be joined, type of joint, joint clearance, brazing procedure, etc.

Typical applications are in the sectors of silverware, jewellery, metallic fashion articles, etc.

### Characteristics Make-up

Rods:    Ø 0,8 ⇒ 3,0 mm    Length: 500 / 1.000 mm  
Flux Coated Rods:                         Ø 1,5 ⇒ 3,0 mm  
Wires:    Ø 0,8 ⇒ 3,0 mm    Spooled and coiled  
Rings  
Pastes & Powders

Other dimensions are available upon request.

### NOTE:

Information contained in this data sheet are based on the knowledge available to us at the date of last document revision and are believed to be accurate. Anyway, no data contained in this data sheet may be regarded as an assurance of any property of the product. We do not assume any responsibility for results obtained or damages occurred from the use of the information contained in this data sheet. We do not assume any responsibility for any un-proper use of the product. Users should verify the suitability and completeness of information with regard to specific use of the product. As end use of product is not under our direct control, it is the user's responsibility to fully comply with applicable laws and regulations in safety and hygiene.

### **STELLA s.r.l.**

Via Marconi 26 – 21041 ALBIZZATE (VA) – ITALY

Tel. +39-0331-985787 – Fax +39-0331-985803

[info@stella-welding.com](mailto:info@stella-welding.com) - [www.stella-welding.com](http://www.stella-welding.com)