

# TECHNICAL SHEET

## Ag64MnNiIn

### Product name

Ag64MnNiIn

### Class of product

Silver based brazing alloy, cadmium-free and zinc free

### Corresponding standards

ISO 17672       -----  
EN 1044         -----  
AWS A5.8-04    -----  
DIN 8513        -----

### Nominal composition (weight %)

Ag:     64  
Cu:     26  
Ni:     2  
Mn:     2  
In:     14,5

### Physical and technical properties

Melting range (Solidus – Liquidus):    730 – 780 °C  
Brazing temperature:                     ~ 790°C  
Density:                                     ~ 9,6 g/cm<sup>3</sup>  
Recommended joint gap:                  0,1 – 0,2 mm  
Continuous service joint operating temp.: -200 / +200 °C

### Range of application

Ag64MnNiIn is a cadmium-free and zinc-free silver brazing alloy for special purposes applications.

It can be used to braze a wide variety of different metals and alloys, and is particularly suited to join stainless steels and difficult to braze materials such as cemented carbides, hard-metal, tungsten carbides, etc.

The alloy is particularly suited for the brazing of stainless steel elements when the joint is expected to be exposed to humid conditions and/or wet environments, and when there is the need to avoid joint failure by the mechanism of interfacial corrosion (stainless steel joints).

Being zinc-free Ag64MnNiIn is also well suited to join tools and elements which will be subject to a TiN coating process.

Brazing procedures range from flame, to induction, to oven and to vacuum techniques.

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

Tensile strength of joints brazed with Ag64MnNiIn 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 carbide and diamond tipped tools industry and in the joining of stainless steel elements.

### Characteristics Make-up

Rods

Flux Coated Rods

Wires

Strips/Rings

Preforms from Wire and from Strip

Pastes & Powders

### NOTE:

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### **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)