

# TECHNICAL SHEET

## Ag49MnNi/1

### Product name

Ag49MnNi/1

### Class of product

Silver based brazing alloy, cadmium-free

### Corresponding standards

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

### Nominal composition (weight %)

Ag:     49  
Cu:     27  
Zn:     21  
Ni:     0,5  
Mn:     2,5

### Physical and technical properties

Melting range (Solidus – Liquidus):    670 - 690 °C  
Brazing temperature:                     ~ 700 °C  
Density:                                     8,9 g/cm<sup>3</sup>  
Recommended joint gap:                   0,1 – 0,25 mm  
Continuous service joint operating temp.: -200 / +200 °C

### Range of application

Ag49MnNi/1 is a special application, cadmium-free, silver brazing alloy, with very good flow properties and excellent tensile strength characteristics.

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

The addition of Nickel and Manganese improves the wetting properties and the corrosion resistance of the alloy, and the tensile strength of brazed joints.

Brazing procedures range from flame to induction techniques.

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

Tensile strength of joints brazed with Ag49MnNi/1 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.

### Characteristics Make-up

Rods:	Ø 0,5 ⇒ 4,0 mm	Length: 500 / 1.000 mm
Flux Coated Rods:	Ø 1,5 ⇒ 3,0 mm	
Wires:	Ø 0,25 ⇒ 3,0 mm	Spoiled and coiled
Strips:	Thickness: 0,1 ⇒ 1 mm	Width: 1,3 ⇒ 80 mm
Rings		
Preforms from Wire and from Strip		
Pastes & Powders		

Other dimensions are available upon request.

### NOTE:

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