

TECHNICAL SHEET

Ag50Ni

Product name

Ag50Ni

Class of product

Silver based brazing alloy, cadmium-free

Corresponding standards

ISO 17672	Ag 450
EN 1044	----
AWS A5.8	BAg-24
DIN 8513	----

Nominal composition (weight %)

Ag:	50
Cu:	28
Zn:	28
Ni:	2

Physical and technical properties

Melting range (Solidus – Liquidus):	660 - 705 °C
Brazing temperature:	~ 710 °C
Density:	9,0 g/cm ³
Tensile Strength (filler metal):	45 kg/mm ²
Recommended joint gap:	0,1 – 0,25 mm
Continuous service joint operating temp.:	-200 / +200 °C

Range of application

Ag50Ni is a special application, cadmium-free, silver brazing alloy, with very good flow properties.

It can be used to join ferrous, non ferrous and dissimilar metals and alloys, such as steel, copper, copper alloys, nickel, nickel alloys.

It is particularly suited to join stainless steels and tungsten carbide cutting tips.

The nickel addition to the alloy retards joint or interface corrosion of the brazed assembly and improves bond strength.

Brazing procedures range from manual to induction techniques.

When brazing in an oxidizing environment a proper flux should be used (AG7 and/or AG8 are recommended).

Tensile strength of joints brazed with Ag50Ni 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.

The main applications of this alloy are found in the joining of 300 series stainless steels in the food, medical and dental fields and in tool industry for the brazing of carbide tipped tools.

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	Spooled 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:

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 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 - www.stella-welding.com