

# TECHNICAL SHEET

## Ag45Sn

### Product name

Ag45Sn

### Class of product

Silver based brazing alloy, cadmium-free

### Corresponding standards

ISO 17672	Ag 145
EN 1044	AG 104
AWS A5.8	BAg-36
DIN 8513	L-Ag45Sn

### Nominal composition (weight %)

Ag:	45
Cu:	27
Zn:	25,5
Sn:	2,5

### Physical and technical properties

Melting range (Solidus – Liquidus):	640 - 680 °C
Brazing temperature:	~ 690 °C
Density:	9,2 g/cm <sup>3</sup>
Tensile Strength (filler metal):	43 kg/mm <sup>2</sup>
Recommended joint gap:	0,05 – 0,15 mm
Continuous service joint operating temp.:	-200 / +200 °C

### Range of application

Ag45Sn is a low melting, cadmium-free, silver brazing alloy with excellent flow characteristics.

It can be used to join ferrous, non ferrous and dissimilar metals and alloys with close joint clearances, such as steel, stainless steel, copper, copper alloys, nickel, nickel alloys.

Its narrow melting range makes it usable for both manual and machine feeding into braze joint.

Brazing procedures range from manual to induction techniques.

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

Tensile strength of joints brazed with Ag45Sn 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 automotive, electric, carbide and diamond tipped tools, air conditioning and refrigeration industries.

### 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:

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