

# BRAZARGENT 3050

(Bare rods/Coated rods/TBW)

Cadmium Free Silver (50%) Brazing Alloy

## TECHNICAL DATA SHEET No. 351A

### Specifications:

Alloy	Working Temperature (°C)	NF EN ISO 17672 (2016-11)	AWS A-5.8	DIN 8513	EN ISO 3677	AMS
Ag-Cu-Zn-Ni	695	Ag450Si	BAG-24	-	B Ag50CuZnNi(Si) 660-705	4788

### Characteristics:

**BRAZARGENT 3050** is a low melting silver-based brazing alloy with Nickel (Ni) improves wettability for Tungsten carbide and material difficult to wet, such as Molybdenum, Tantalum and Chromium. Also Improves joining strength. It improves corrosion resistance on stainless steel compared many silver braze alloys. Low flow point will minimize oxidation of stainless during brazing. It's good brazing properties makes it suitable for all heating methods.

The rods are available in bare rods to be used with ours **AGFLUX / Paste**, in coated rods (**HP Flux**) and also available in **TBW** (Tubular Brazing Wire). This technology (Flux inside) offers a great efficiency in terms of application and control to metal/flux ratio (12% +/- 2 or 18 % +/-2).

### Applications:

**BRAZARGENT 3050** can be used for brazing 300 Series Stainless Steel. This alloy aids in joining tungsten carbide inserts to Steel and Tool Steel for cutting tips. Its designed for brazing Copper, Brass, Steel, Nickel alloys. It can Typical applications are found e.g. Cutting tools, Medical, Dental and hospital applications, in Electric and Automotive industry, Plumbing. Operating temperature of brazed joint approx. -200°C to +300°C (without loss in strength).

### Typical Chemical Compositions (%):

Ag	Cu	Zn	Ni	Al	Bi	Cd	Si	P	Pb	Max. impurities
50.00	20.00	28.00	1.90	<0.001	<0.001	<0.001	0.10	0.005	<0.001	<0.15

### Typical Physical Properties:





Colour	Solidus (°C)	Liquidus (°C)	Density g/cm³	Elongation %	Tensile strength (MPa)	Electrical Conductivity %IACS	Electrical Resistivity (Micro-ohm-cm)
Silver	660	705	9.0	20%	540	15.10	11.80

Ag 450Si: A small amount of Silicon (~0.1%) is added during the melting in order to improve stability of the alloy and brazability (no sparking effect). This alloy can also be made with less 0.05% Silicon to be 100% Conform to NF EN ISO17672 Norm, on specific request.

### Properties of Brazed Joint:

The properties of a brazed joint dependent upon numerous factors including base metal properties, joint design, metallurgical interactions between the base metal and the filler metal. This alloy needs a controlled quench (in excess of 300°C) to avoid the weakening of the brazed joint.

### Standard Size, Types and Heat Source Recommendations:

Size Ø x 500 (mm)	Type									
	Bare	Coated	TBW	Coil/Spool	Preforms					
Ø 1.5 to 3.0	✓	✓	✓	✓	✓	Bare	✓	✓	✓	✓
						Coated	✓	X	✓	✓
Ø 0.7 to 3.0						TBW	✓	✓	✓	✓

Customised size other than above standard dimensions are solicited case to case basis

**Liability:** This document is intended to assist the user in choosing the product. It is up to the user to verify that the chosen product is suitable for applications for which it is intended. The company FSH Welding Group reserves the right to alter specifications without prior notice of its products. The descriptions, illustrations and specifications are for reference only and cannot be held liable for FSH Welding Group. **Fumes:** Consult information on MSDS, available upon request.