Data Sheet

95Ag – 5Al

Description:

High-purity silver and aluminium alloy for vacuum brazing.
Nominal composition by weight: **95% Ag** and **5% Al**

Prime Features:

- Ductile joining of Titanium alloys

Typical Applications:

- Ti to Ti bonding

Suggested base materials:

- Titanium

Physical Properties*

Liquidus Temperature	830 °C
	1526 °F
Solidus Temperature	780 °C
	1436 °F
Coefficient of Thermal Expansion (CTE)	
Thermal Conductivity (Calculated)	35.7 W/m·K
	20.6 BTU/ft·h· °F
Density	9.2 Mg/m³
	0.332 lb/in³
Yield Strength (0.2% offset)	83.5 MPa
	12.3 lb/in³
Tensile Strength	259.7 MPa
	38.3 lb/in³
Elongation (2in/50mm gage section)	50%
Electrical Resistivity	212 x 10^{-9} ohm·m
Electrical Conductivity	4.72 x 10^{6} /ohm·m
Vapor Pressure (Calculated)	
Recommended Brazing Temperatures	850 – 880 °C
Recommended Brazing Atmospheres	10^{-5} mm Hg

* Please note that all values quoted are based on test pieces and may vary according to component design. These values are not guaranteed in any way and should only be treated as indicative values. They should be used for guidance only and for no other purpose whatsoever.

Impurity Limits

Zn	less than 0.001%
Cd	less than 0.001%
Pb	less than 0.002%
P	less than 0.002%
C	less than 0.01%

All other metallic impurities having a vapor pressure higher than 10^{-7} mm Hg at 500 °C are limited to 0.002% each. Impurities having a vapor pressure lower than 10^{-7} mm Hg at 500 °C are limited to a total of 0.075%. (This applies to all forms except powder and extrudable paste.)

Supplied As:

- Foil
- Wire
- Preforms