Data Sheet

Palcusil® 5

Description:
High-purity silver, copper and palladium alloy for vacuum brazing.
Nominal composition by weight: **68% Ag**, **27% Cu** and **5% Pd**

Prime features:

- Better wetting than Cusil on Kovar to Mo-Mn seals.
- Excellent for vacuum-tight joints

Typical applications:

- RF windows
- Feedthurs

Suggested base materials:

- Kovar, Copper, Nickel, Metallized Ceramic

Physical Properties*

Liquidus Temperature	810 °C
	1490 °F
Solidus Temperature	807 °C
	1485 °F
Coefficient of Thermal Expansion (CTE)	17.2 x 10^{-6}/C, for 20 – 600 °C
	9.6 x 10^{-6}/°F, for 68 – 1112 °F
Thermal Conductivity (Calculated)	
Density	9.98 Mg/m³
	0.36 lb/in³
Yield Strength (0.2% offset)	333 MPa
	48.3 x 10^{3} lb/in²
Tensile Strength	380 MPa
	55.2 x 10^{3} lb/in²
Elongation (2in/50mm gage section)	11%
Electrical Resistivity	37 x 10^{-9} ohm·m
Electrical Conductivity	27 x 10^{6} /ohm·m
Vapor Pressure (Calculated)	
Recommended Brazing Temperatures	
Recommended Brazing Atmospheres	10^{-5} mm Hg, H_2, or inert gas

* 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
- Flexibraze
- Wire
- Powder
- Extrudable paste
- Preforms