Morgan Advanced Materials

WESGO

Data Sheet

Palni®

Description:

High-purity palladium and nickel alloy for vacuum brazing.
Nominal composition by weight: **60% Pd** and **40% Ni**

Prime features:

- High strength and temperature

Suggested base materials:

- Nickel, Stainless steel, Ni-super alloys, Refractory metals

Physical Properties*

Liquidus Temperature	1238°C
	2260 °F
Solidus Temperature	1238 °C
	2260 °F
Coefficient of Thermal Expansion (CTE)	15.0 x 10^{-6}/C, for 20 – 1000 °C
	8.5 x 10^{-6}/°F, for 68 – 1832 °F
Thermal Conductivity (Calculated)	
Density	10.4 Mg/m³
	0.375 lb/in³
Yield Strength (0.2% offset)	772 MPa
	112 x 10^{3} lb/in²
Tensile Strength	979 MPa
	142 x 10^{3} lb/in²
Elongation (2in/50mm gage section)	23%
Electrical Resistivity	111 x 10^{-9} ohm·m
Electrical Conductivity	
Vapor Pressure (Calculated)	5 x 10^{-7} mm Hg @ 1000 °C, 1832 °F
	7 x 10^{-5} mm Hg @ 1200 °C, 2192 °F
Recommended Brazing Temperatures	
Recommended Brazing Atmospheres	

* 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

The determination as to the adaptability of any Wesgo materials to the specific needs of the Buyer is solely the Buyer's prerogative and responsibility. All technical information, data and recommendations are based on tests and accumulated experience data, which Wesgo believed to be reliable. However, the accuracy and completeness thereof are not guaranteed.

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