

Data Sheet

# Palnico<sup>®</sup> - 36M

Description:

High-purity palladium, nickel and chromium alloy for vacuum brazing and TIG welding.

Nominal composition by weight: **50% Ni, 36% Pd, 10.5% Cr**, with approximately **3% B** and **0.5% Si**

Prime features:

- Excellent creep resistance at elevated temperatures — better than Nicro<sup>®</sup> grade
- This brazing alloy is also used for TIG welding applications: see ‘Supplied as’ sections below
- Can be supplied as flexible Melt-Spun Foil, made by rapid solidification technique.

Typical applications:

- Aero engine compressor vanes and stators
- Aerospace fuel-line assemblies
- Wave guide and Klystron assemblies
- Power supply surge arrestors
- Automotive components

Physical Properties\*

Liquidus Temperature	960 °C
	1760 °F
Solidus Temperature	820 °C
	1508 °F
Coefficient of Thermal Expansion (CTE)	
Thermal Conductivity (Calculated)	
Density	8.83 Mg/m <sup>3</sup>
	0.319 lb/in <sup>3</sup>
Yield Strength (0.2% offset)	
Tensile Strength	
Elongation (2in/50mm gage section)	
Electrical Resistivity	
Electrical Conductivity	
Vapor Pressure (Calculated)	
Recommended Brazing Temperatures	970 – 1050 °C
Recommended Brazing Atmospheres	10 <sup>-5</sup> 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<sup>-7</sup> mm Hg at 500 °C are limited to 0.002% each. Impurities having a vapor pressure lower than 10<sup>-7</sup> 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:

- Meltspun foil
- Strip foil up to 250mm [10in] wide
- Typical thickness 0.05mm [0.0002in]
- Powder
- Paste

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.

