

Data Sheet

Palniro™ (Mac-Palniro™ 7-WM)

Description

High-purity gold/nickel/palladium alloy for vacuum brazing. Nominal composition by weight: **70% Au, 22% Ni and 8.0% Pd.**

Prime Features:

- High ductility
- High strength
- Recommended for brazing super alloys and stainless steels

Specifications

- Quality Assurance to ISO 9002
- AMS 4786

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 10-7mm Hg at 500C are limited to 0.002% each. Impurities having a vapor pressure **lower** than 10-7mm Hg at 500C are limited to a total of 0.075%. (This applies to all forms except powder and extrudable paste.)

Typical Applications:

- Aero-engines (OEM and repair)
- Aerospace fuel-line assemblies
- Vacuum tubes
- Wave guide and Klystron assemblies
- Power supply surge arrestors
- Automotive components

Supplied As:

- Foil
- Flexibraz
- Wire
- Powder
- Extrudable paste
- Preforms

Thermal Conductivity (Calculated)	21.0 W/m.K 12.1 BTU/ft.h.°F
Liquidus Temperature	1037 °C 1899 °F
Solidus Temperature	1005 °C 1841 °F
Density	14.5 mg/m ³ 0.524 lb/in ³
Thermal Expansion Coefficient	14.0 RT-50°C, 10 ⁻⁶ /C 7.8 RT-932°F, 10 ⁻⁶ /°F
Electrical resistivity	369 10 ⁻⁹ ohm.m:
Electrical conductivity	2.7 10 ⁶ /ohm.m
Yield Strength	758 MPa 110x10 ³ lb/in ²
Tensile Strength	847 MPa 123x10 ³ lb/in ²
Elongation (2in/50mm gage section)	20%
Knoop Hardness	3270 KHN @ 100g expressed as MPa

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From an extensive range of advanced materials we produce components, assemblies and systems that deliver significantly enhanced performance for our customers' products and processes. Our engineered solutions are produced to high tolerances and many are designed for use in extreme environments.

We design and manufacture products for demanding applications in a variety of markets using a comprehensive range of advanced ceramic, glass, precious metal, piezoelectric and dielectric materials. We utilise core competences of applications engineering and superior materials technology, together with state of the art fully integrated manufacturing processes to offer precision ceramic components, ceramic-to-metal assemblies and special coatings for use in a variety of applications.