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Pt92/W8

TECHNICAL DATA

| | | |
|---|---|-----------------|
| | Platinum | 92.0% ± 1.0 |
| | Tungsten | 8.0% ± 1.0 |
| | Total Impurities | 0.2% max. |
| | Total Platinum Group (Pd, Rh, Os, Ru) | 0.1% max. |
| | Total Other Impurities (Including those listed below) | 0.1% max. |
| NOMINAL COMPOSITION | Lead | 0.01% max. |
| | Antimony | 0.01% max. |
| | Bismuth | 0.01% max. |
| | Tin | 0.01% max. |
| | Arsenic | 0.01% max. |
| | Cadmium | 0.01% max. |
| | Zinc | 0.01% max. |
| | Iron | 0.015% max. |
| | Other elements (each) | 0.02% max. |
| | PHYSICAL PROPERTIES | Color |
| Solidus | | 3398°F (1870°C) |
| Liquidus | | 3470°F (1910°C) |
| Density (TOz/in³) | | 11.2 |
| Electrical Resistivity (Microhm-cm) | | 62 |
| Electrical Conductivity (%IACS) | | 48.3 |
| Tensile Strength (KSI) | | |
| Hard: | | 220 |
| Stress Relieved: | | 140-200 |
| Fully Annealed: | | 110-150 |
| Young's Modulus (x10⁶psi) | | 33.4 |
| Elongation (%) | | |
| Hard: | | <2% |
| Stress Relieved: | >2% | |
| Fully Annealed: | >20% | |
| USES | Pt92/W8 is used for a range of different medical applications due to its relatively high degree of biocompatibility and excellent fatigue resistance. One specific application include use in embolization devices as radiopaque spacers. Pt92/W8 also been used for potentiometer applications due to its high degree of wear resistance and low electrical noise characteristics. | |
| SPECIFICATIONS | Pt92/W8 alloy conforms to: N/A | |
| AVAILABLE FORMS | Wire, rod, engineered preforms and specialty preforms per customer specification, powder and paste. | |

**SAFETY
INFORMATION**

Pt92/W8 is not recommended for use at high temperatures under oxidizing conditions due to selective oxidation of tungsten.

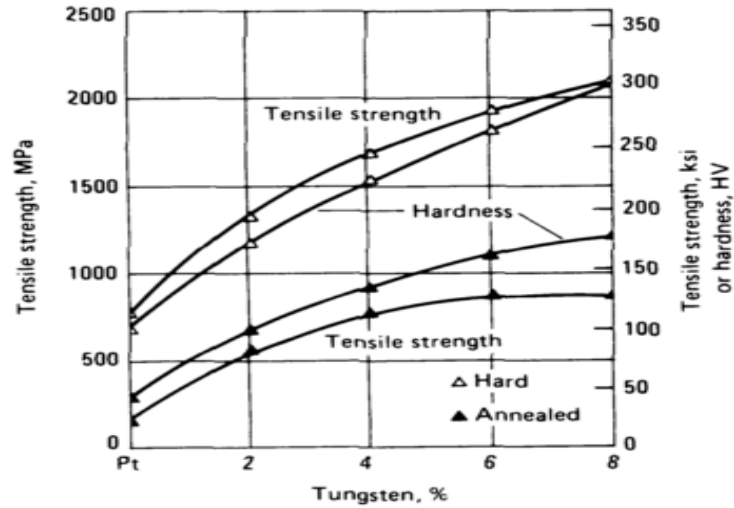


Figure 1: Mechanical properties as a function of tungsten content

**ADDITIONAL
PROPERTIES**

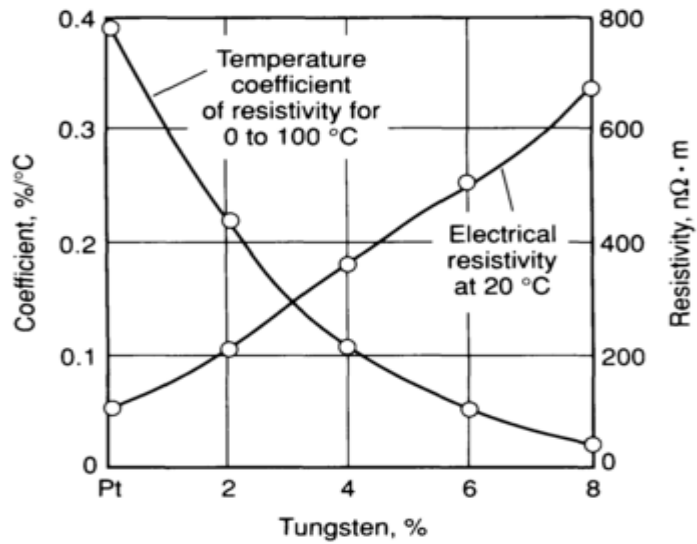


Figure 2: Electrical resistivity as a function of tungsten content

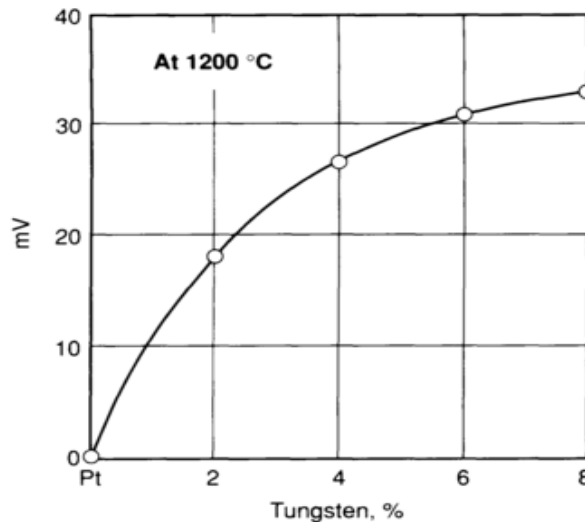


Figure 3: Thermal electromotive force as a function of tungsten content

Individuals requiring further information and Engineering Specification Documents may wish to contact the Engineering Society for Advanced Mobility, Land Sea Air and Space, The Society of Automotive Engineers <http://www.sae.org/> (SAE AMS) or The American Welding Society (AWS) <http://aws.org/>

NOTE:

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