DERINGER·NEY INC

PLATINUM-10 WT% IRIDIUM NOMINAL ALLOY PROPERTIES*

Material Constants

Property	Nominal Values	
Solidus Temperature (Melting Point)**	1820°C	3360°F
Liquidus Temperature**	1850°C	3310°F
Density	21.54 g/cm^3	227.0 dwt/in^3
Electrical Resistivity at 20°C (68°F)	24.5 μΩ-cm	
Electrical Conductivity at 20°C (68°F)	7.05%IACS	
Thermal Conductivity* at 20°C (68°F)**	29.2 W/m-K	16.9 Btu/hr-ft-°F
Modulus of Elasticity	201 GPa	29.1 Msi
Poisson's Ratio	0.378	

* The information contained in this Data Sheet is intended to assist you in the use of this product. It is not intended to and does not create any warranties, express or implied, including any warranty of merchantability or fitness for a particular application. The user should determine the suitability of this material for each application. Data is subject to change without notice.
** Estimated from binary alloy phase diagram
*** Estimated from Wiedemann-Franz Law at 20°C
Values in red are estimated

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Mechanical Properties

Property	Nominal Values	
Ø0.100 in rod in the cold worked ("CW") temper		
Ultimate Tensile Strength	550 MPa	80 ksi
Yield Strength	540 MPa	78 ksi
Total Elongation	9%	
Ø0.013 in wire in the stress relieved ("SR") temper		
Ultimate Tensile Strength	590 MPa	86 ksi
Yield Strength	580 MPa	84 ksi
Total Elongation	7%	
0.002 in thick strip in the cold worked ("CW") temper		
Ultimate Tensile Strength	820 MPa	119 ksi
Yield Strength	780 MPa	113 ksi
Total Elongation	1.3%	

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