

Properties of Paliney® 2000

Paliney® 2000 is a patented* palladium, silver, copper alloy developed by Deringer-Ney to have mechanical and environmental properties rivaling D-N's well known Paliney 6 alloy but at a lower cost. It offers improved electrical conductivity and is being used successfully in hearing aid and sliding contact applications.

Mechanical and Electrical Properties Wire, 0.003" – 0.020" Strip, 0.003" – 0.020"

Properties of Paliney 2000		Condition			
		Cold Worked	Annealed	Stress Relieved	Age Hardened
Ultimate Tensile Strength (ksi)	Wire	150 – 200	110 – 140	150 – 200	150 – 210
	Strip	130 – 160	90 – 140	---	130 – 200
Yield Strength (ksi)	Wire	----	----	115 – 135	----
	Strip	----	----	----	110 – 160
Elongation (% in 2")	Wire	< 2	1 – 20	< 2	< 5
	Strip	< 2	1 – 40	----	1 – 10
Hardness (Knoop)	Wire	250 – 370	200 – 300	290 – 370	290 – 360
	Strip	250 – 330	180 – 260	----	300 – 360
Electrical Conductivity (%IACS, Nominal)		----	----	----	13.5
Electrical Resistivity (microhm-cm, Nominal)		----	----	----	12.8
Bend Formability (R / t, 90° Bad Way) Strip		----	< 0.3	----	----
Physical Properties and Elevated Temperature Properties					
Modulus of Elasticity (x10 ⁶ psi, Nominal)		15	Stress Relaxation Resistance (Stress Remaining after 3000 hr @ 200°C and 75% of Y.S.)		> 80%
Density (dwt / in ³ , Nominal)		108.8	Contact Resistance (Increase in static contact resistance after aging in air for 1000 hr @ 150°C)		< 100 milli ohms

*US Patent 5,833,774

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