Palysium

Hera 6307

Palysium is a recently developed Heraeus-alloy which is specially tailored for probing applications. It is characterized by very high electrical conductivity combined with excellent mechanical properties and good workability. High electrical conductivity opens new applications and can reduce the cost of semiconductor-testing. Significantly more current can be transmitted with the same cross-sectional area. Thus, high-power applications can be tested. At the same time, the needles can shrink considerably at the same current, which has a positive effect on the pitch, the pin count and testing parallelism.

General information

Applications	Springs, probes
Product Forms	wire
Density, g/cm³	10.52
Melting Range, °C	1100 - 1190

Forming Processes

Material Behaviour	ductile
Forming Process	formable, machinable

Physical properties

Conductivity, min., % IACS	24
Conductivity, max., % IACS	29
Thermal Conductivity at 20 °C, W/(m*K)	144
Young's Modulus, GPa	120
Current Carrying Capability (CCC)*, mA	590
Maximum Allowable Current (MAC)*, mA	506

*41 µm diameter, 8 mm length, flat tip and end, overtravel 75 µm, offset 250 µm, 120 s current cycle time, 10 s off-time between cycles, room temperature

	Property Range
Hardness, HV	400 - 480
Yield Strength, MPa	1250 - 1500

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Looking for more data?

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