

## Paliney® H3C vs Paliney® 7

Paliney®7 is used for cantilevers, buckling beam and other semiconductor test probes where its high nobility outweighs its lower electrical conductivity. H3C is a new alloy designed to replace Paliney®7 in applications where higher hardness and higher electrical conductivity is required. Alloy H3C, the hardest of the Paliney family of alloys produced to date by Deringer-Ney is designed to be drawn down to wire diameters as fine as 0.001". However its extreme hardness in the full hard HT temper limits its formability. In applications where formability similar to Paliney 7 along with a higher electrical conductivity is required the alloy is available in the HTB Temper which allows secondary processing operations similar to Paliney 7 including forming, coining and pointing. Other Tempers and sizes are available, please consult factory.

### Mechanical and Electrical Properties: Wire, 0.0015" – 0.020" Cut Lengths - 36" maximum length

	H3C		Paliney® 7
	HT Temper	HTB Temper	HT Temper
Ultimate Tensile Strength (ksi)	220 - 280	190 min	160-200
Elongation (% in 2")	3 Max.	1.5 min	10-Jan
Hardness (Knoop)	425 - 515	390 min	350-410
Electrical Conductivity (%IACS, Nominal)	14	15	5.5
Electrical Resistivity (microhm-cm, Nominal)	12.3	11.5	31.6

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