

voestalpine HIGH PERFORMANCE METALS

AISI 630 / 1.4404 / UNS17400

DESCRIPTION

630 is Martensitic precipitation hardenable chromium, nickel, copper steel possessing high strength and toughness. Further strength increments can be obtained by cold forming, followed by a precipitation hardening treatment. 630 has similar corrosion resistance to 304.

NEAREST STANDARDS

AISI	DIN	BS	UNS
630	1.4542 / X5CrNiCuNb17-4	-	S17400

CHEMICAL ANALYSIS (AVE %)

C	Si	Mn	Ni	Cr	Nb	Cu	S	P
0.04	0.60	0.30	4.20	16.0	0.30	3.30	0.03	0.03

HEAT TREATMENT (RECOMMENDED)

Forge	850-1150c.
Solution Treatment (Cond. A)	1030-1050c. Hold 30mins. Air cool.
Precipitation Harden / Aging	H900 - 482c. Hold 4hrs. Air cool. H1025 - 552c. Hold 4hrs. Air cool. H1150 - 620c. Hold 4hrs. Air cool.
Nitriding	The nitriding process reduces the steel's corrosion resistance. It is applied in cases where increased friction and wear is required. Plasma nitriding in combination with precipitation hardening will result in a hardness depth of 0.1- 0.15mm. A surface hardness of 67 HRC can be achieved.

MECHANICAL PROPERTIES (SOLUTION ANNEALED)

Tensile Mpa (Rm)	Yield Strength (MPa)	Elongation (%)	Hardness (HB)
1100	900	10	365

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SUPPLY CONDITION

Annealed & Double Aged

SURFACE TREATMENT

Machined (k12)

Ground (h8)

Peeled & Polished (h9)

SIZE RANGES

For stocked sizes and to view availability at your local branch, visit the vHPM Australia Webshop
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PERFORMANCE IS IN OUR DNA

voestalpine High Performance Metals is the global market leader in the production of tool steels and one of the world's leading suppliers of high-speed steels, valve steels, special steels, powder metallurgy steels, and nickel-based alloys. We also manufacture die-forged components and large castings from nickel-based alloys and high, medium and low alloy steels.

Customers rely on our key brands of Bohler, Uddeholm and Villares, to set the highest standards of innovation, quality and service across a wide range of industries including automotive, aerospace, consumer electronics and oil & gas. We are fully integrated from steel production through to local customer sales, ensuring we keep our customers One Step Ahead.

EXPLORE WHAT IS POSSIBLE.



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