voestalpine HIGH PERFORMANCE METALS
AISI 8420 / 1.6587 / E110

DESCRIPTION

Nickel Chromium Molybdenum case hardening steel combining core toughness and high case hardness after carburising and quenching

NEAREST STANDARDS

AISI	DIN	BS	UNS
8420	1.6587 / 17CrNiMo6	820A16	-

CHEMICAL ANAYLSIS (%)

C	Si	Mn	Ni	Cr	Mo	S	P
0.18	0.30	0.50	1.50	1.70	0.30	0.025	0.025

HEAT TREATMENT (RECOMMENDED)

Normalise	850-880c. Air cool.
Anneal	650-700c. Cool slowly in controlled furnace.
Carburize	900-950c Furnace or Air cool.
Core Refine	830-870c Oil quench or Air cool.
Harden	780-820c Oil quench
Temper	150-200c Air cool.
Annealed Hardness	229 HB Max

MECHANICAL PROPERTIES (HEAT TREATED)

Tensile Strength (Mpa)	Yield Strength (Mpa)	Elongation (%)	Hardness (HB)
980-1270	785	8	290-375

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SUPPLY CONDITION

Annealed

SURFACE TREATMENT

Peeled & Polished (H10/H11)
Rough Machined (K12)

SIZE RANGES

For stocked sizes and to view availability at your local branch, visit the vHPM Austalia Webshop

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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ONE STEP AHEAD.