

Products & Sizes

Bar

0.500" - 13.000"

422 Chemical Composition

	Element	Min	Max
C	Carbon	0.20	0.25
Cr	Chromium	11.50	13.50
P	Phosphorus	-	0.040
Mo	Molybdenum	0.75	1.25
S	Sulfur	-	0.030
W	Tungsten	0.75	1.25
Si	Silicon	-	1.00
V	Vanadium	0.20	0.50
Mn	Manganese	-	1.00
Fe	Iron	-	Balance

Industry Standards

Industry Applications

- Power generation
- Compressors
- Steam turbines
- Aircraft parts
- High-temperature bolting

Physical Properties

Property	Value
Density	0.280 lb/in ³
Hardening Annealed	Rc 21/25
Hardening Quenched and Tempered	Rc 45/50

Heat treatment is sensitive as the alloy is very susceptible to cracking.

Mechanical Properties

422 bar is readily machinable in the annealed condition with machining characteristics similar to those of alloy 420 stainless steel.