

Greek Ascoloy

Smiths Advanced Metals

Martensitic Stainless Steel Bar

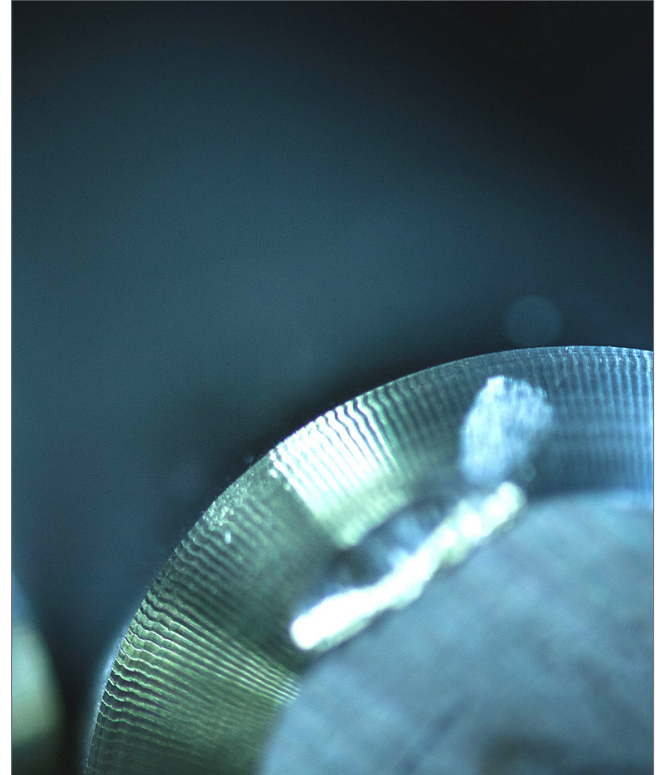
Heat-treatable stainless steel alloy.

Greek Ascoloy is a martensitic and tempering resistant stainless steel that is designed to perform at elevated temperatures up to 648°C.

While similar to 410 stainless steel, the product differs from this alloy because it may be heat-treated to multiple strength levels. Greek Ascoloy represents a higher-strength modification of the 12% chromium group of martensitic stainless steels. The material is developed for use in high-stress components operating at high temperatures. The product offers various attractive performance characteristics, including superior creep resistance and resistance to stress-corrosion cracking (SCC).

Known as a deep hardening grade, the alloy finds use in high-temperature bolts, jet engine components and steam & gas turbines.

We supply [Greek Ascoloy stainless steel bars](#) from stock in various sizes to suit your engineering requirements. We also process your bars for you in-house, courtesy of our dedicated billeting services.



Grades / Specifications

- AMS5616
- ASTM A565
- UNS S41800
- 418

Benefits

- Good strength
- Good resistance to oxidation
- Good resistance to heat
- Superior creep resistance

* Chemical Composition (weight %)

	C	Cr	W	Ni	P	S	Si	Mn	Mo	Al	Cu	Sn	N	Fe
min.	0.15	12.00	2.50	1.80										Bal
max.	0.20	14.00	3.50	2.20	0.04	0.03	0.50	0.50	0.50	0.15	0.50	0.05	0.08	

* As per AMS A5616

* Mechanical Properties

Ultimate Tensile Strength	965 MPa min
0.2% Yield Strength	760 MPa min
Elongation	15% min
Reduction of Area	45% min
Hardness (Brinell)	302-352 (311 maximum if material is annealed)

* Properties as per ASTM A565