



INCONEL[®] 686

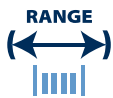
Key Features

This Nickel-Chromium-Molybdenum-Tungsten alloy has exceptional resistance to sulfuric or hydrochloric acids, and to crevice or pitting corrosion in hot acid solutions which out performs Hastelloy C grades in mixed acids. This alloy ideal for marine service having excellent resistance to general, galvanic, and localized corrosion and hydrogen embrittlement in seawater. INCONEL[®] 686 also has a high operating of up to 1000°C which is ideal for applications such as bolts, nuts and studs in the fasteners industry.

IMPORTANT

We will manufacture to your required mechanical properties.

key advantages to you, *our customer*



0.025mm to 21mm
(.001" to .827")



Order 3m to 3t
(10ft to 6000Lbs)



Delivery:
within 2 weeks



Wire to your spec



E.M.S available



Technical support

INCONEL[®] 686 available in:-

- Round wire
- Bars or lengths
- Flat wire
- Profile wire
- Rope/Strand

Packaging

- Coils
- Spools
- Bars or lengths



INCONEL® 686



alloy wire®
international

Chemical Composition			Specifications	Key Features	Typical Applications
Element	Min %	Max %	ASTM B574 ASTM B575 ASTM B619 ISO 15156-3 (NACE MR0175) Designations UNS N06686 W.Nr. 2.4606 Ni-Cr-Mo-W NiCr21Mo16W	Excellent corrosion resistance in a wide range of corrosive applications such as hot acids and marine environments Higher operating temperatures than most Hastelloy C grades Exceptional resistance to general corrosion including pitting and crevice corrosion	Chemical Processing Petrochemical processing Marine Engineering Acid Processing Oil & Gas extraction Pulp & Paper production Pollution control Waste treatment Welding
Ni	Balance				
Cr	19.0	23.00			
Mo	15.0	17.0			
W	3.0	4.4			
Ti	0.02	0.25			
Fe	-	1.0			
C	-	0.01			
Mn	-	0.75			
S	-	0.02			
Si	-	0.08			
P	-	0.04			

Density	8.73 g/cm ³	0.315 lb/in ³
Melting Point	1338 - 1380 °C	2440 - 2516 °F
Coefficient of Expansion	11.97 gm/m °C (20 - 100 °C)	6.650 x 10 ⁻⁶ in/in °F (70 - 212 °F)
Modulus of Elasticity	207.0 kN/mm ²	30000 ksi

Properties				
Condition	Approx. tensile strength		Approx. operating temperature depending on load** and environment	
	N/mm ²	ksi	°C	°F
Annealed	<1000	<145	Up to 1000	Up to 1832
Spring Temper	1200 – 1600	174 – 232	Up to 1000	Up to 1832

The above tensile strength ranges are typical. If you require different please ask.

** High temperature static applications

**Static applications = still/fixed/motionless/rigid