



## INCOLOY® A-286

### Key Features

High strength and good corrosion resistance at high temperatures

Age hardenable

Good for high temperature fasteners

**\*\*High temperature static applications**

### 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  
(10 ft to 6000 Lbs)



Delivery:  
within 3 weeks



Wire to your spec



E.M.S available



Technical support

### INCOLOY® A-286 available in:-

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

### Packaging

- Coils
- Spools
- Bars or lengths



Chemical Composition			Specifications	Key Features	Typical Applications
Element	Min %	Max %	AMS 5731 AMS 5734 AMS 5737 AMS 5853 ASTM A453 BS HR 52 BS HR 650 ISO 15156-3 (NACE MR 0175) <b>Designations</b> W.Nr. 1.4944 W.Nr. 1.4980 UNS S66286 AWS 023	High strength and good corrosion resistance at high temperatures Age hardenable Good for high temperature fasteners **High temperature static applications	Jet Engines Super Chargers Afterburner Parts Fasteners
C	0.03	0.08			
Mn	1.00	2.00			
Si	-	0.50			
P	-	0.02			
S	-	0.015			
Cr	13.50	16.00			
Ni	24.00	27.00			
Mo	1.00	1.50			
Ti	1.90	2.30			
B	0.003	0.01			
V	0.10	0.50			
Co	-	1.00			
Al	-	0.35			
Cu	-	0.50			
Pb	-	0.005			

<b>Density</b>	7.94 g/cm <sup>3</sup>	0.287 lb/in <sup>3</sup>
<b>Melting Point</b>	1430 °C	2600 °F
<b>Coefficient of Expansion</b>	16.4 µm/m °C (20 – 100 °C)	9.1 x 10 <sup>-6</sup> in/in °F (70 – 212 °F)
<b>Modulus of Rigidity</b>	71.5 kN/mm <sup>2</sup>	10370 ksi
<b>Modulus of Elasticity</b>	205 kN/mm <sup>2</sup>	29733 ksi

Heat Treatment of Finished Parts					
Condition as supplied by Alloy Wire	Type	Temperature		Time (Hr)	Cooling
		°C	°F		
Annealed or Spring Temper	Age Harden	705 – 760	1300 – 1400	16	Air

Properties				
Condition	Approx. tensile strength		Approx. operating temperature depending on load** and environment	
	N/mm <sup>2</sup>	ksi	°C	°F
Annealed	<750	<109	-200 to +400	-330 to +750
Annealed + Aged	950 – 1300	138 – 188	-200 to +400	-330 to +750
Spring Temper	1050 – 1250	152 – 181	-200 to +400	-330 to +750
Spring Temper + Aged	1200 – 1500	174 – 218	-200 to +400	-330 to +750

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

\*\*Static applications = still/fixe/motionless/rigid