

Products & Sizes

Coil	Sheet	Bar	Precision Reroll Strip
0.0200" - 0.1250"	0.0200" - 0.1250"	0.250" - 6.000"	0.0008" - 0.015"

A286 Chemical Composition

	Element	Min	Max
C	Carbon	-	0.08
Mn	Manganese	-	2.00
P	Phosphorus	-	0.025
S	Sulfur	-	0.025
Si	Silicon	-	1.00
Cr	Chromium	13.50	16.00
Ni	Nickel	24.00	27.00
Mo	Molybdenum	1.00	1.50
Ti	Titanium	1.90	2.35
V	Vanadium	0.10	0.50
Al	Aluminum	-	0.35
B	Boron	0.003	0.010
Fe	Iron	-	Balance

Industry Standards

- EN 1.4980
- DIN EN 10204 3.1
- PWA-LCS
- GE Aircraft Engine (GT193)
- GE Aviation S-SPEC-35 AeDMS S-400
- RR SABRe Edition 2
- DFARS Compliant

Industry Applications

- Jet engine components
- Fasteners
- Springs
- Bolts
- Flanges
- Blades
- Afterburners
- Automotive applications
- Offshore Oil Gas
- Moderate Corrosion Applications in Aqueous Solutions
- Non-magnetic Cryogenic Equipment

Physical Properties

Property	Solution Treated	Solution Treated and Aged
Density	0.286 lb./in ³ (7.92 g/cm ³)	0.287 lb./in ³ (7.94 g/cm ³)
Specific Heat	420 Joules kg [°] K (Btu/lb/°F)	-
Specific Gravity	7.92	7.94
Melting Range	2500 - 2600 °F	1370 - 1430 °C
Magnetic Permeability	1.010	1.007

Thermal Conductivity			
Temperature Range		Linear Coefficients of Thermal Expansion · 10 ⁻⁶	
°C	°F	/°C	/°F
21-93	70-200	16.5	9.17
21-204	70-400	16.8	9.35
21 - 316	70 - 600	17.0	9.47
21 - 427	70 - 800	17.4	9.64
21 - 538	70 - 1000	17.6	9.78
21 - 649	70 - 1200	17.8	9.88
21 - 760	70 - 1400	18.6	10.32

Thermal Conductivity			
Temperature Range		Coefficients	
°C	°F	W/m·K	Btu/(hr/ft ² /in/°F)
150	302	15.1	8.7
300	572	17.8	10.3
500	932	21.8	12.6
600	1112	23.9	13.8

Electrical Resistivity		
Temperature		microhm-cm
°C	°F	
25	77	91.0
540	1004	115.6
650	1202	118.8
730	1346	120.1
815	1499	122.4

Mechanical Properties

Type A286 alloy is formed most easily in the solution treated condition. Typical room temperature tensile properties of material solution treated at 1800°F (982°C) are shown below.

Property	Value
Yield Strength	40,000 psi (275 MPa)
Ultimate Tensile Strength	90,000 psi (620 MPa)
Elongation	40%