

Products & Sizes

Coil	Sheet	Plate	Bar	Precision Reroll Strip
0.020" - 0.125"	0.020" - 0.125"	0.250" - 3.000"	0.250" - 0.500"	0.0008" - 0.015"

Alloy X Chemical Composition

	Element	Min	Max
C	Carbon	0.05	0.15
Mn	Manganese	-	1.00
P	Phosphorus	-	0.040
S	Sulfur	-	0.030
Si	Silicon	-	1.00
Cr	Chromium	20.50	23.00
Ni	Nickel	-	Balance
Mo	Molybdenum	8.00	10.00
Ti	Titanium	-	0.15
Al	Aluminum	-	0.50
Co	Cobalt	0.50	2.50
B	Boron	-	0.01
Cu	Copper	-	0.50
W	Tungsten	0.20	1.00
Fe	Iron	17.00	20.00

Industry Standards

- ASME SB 435
- EN 2.4665
- B50A249C
- B50A436
- B50A463
- 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
- Afterburners
- Tailpipes
- Gas Turbine Operations
- Petro-Chemical
- Structural Components
- Industrial Furnace
- Flash Drier Components

Physical Properties

Property	Value
Density	0.297 lb/in ³ (8.22 g/cm ³)
Specific Gravity	8.22
Melting Range	2300 - 2470°F (1260 - 1355°C)
Magnetic Permeability	< 1.002

Thermal Conductivity			
Temperature Range		Coefficients	
°C	°F	W/m·K	Btu/(hr/ft ² /in/°F)
21	70	9.1	5.23
93	200	11.0	6.33
260	500	14.1	8.17
593	1100	20.8	12.0
704	1300	22.9	13.2
816	1500	25.0	14.5
927	1700	27.2	15.7

Electrical Resistivity		
Temperature		microhm-cm
°C	°F	
21	70	115.8
200	392	120
400	752	123
500	1112	127
800	1472	128
1000	1832	129

Mechanical Properties

Temperature Range		0.2% Yield Strength		Ultimate Tensile Strength		Elongation Percent
°C	°F	psi	MPa	psi	MPa	
-321	-196	-	-	150,200	1035	46
-108	-78	-	-	118,800	819	51
72	22	47,000	324	104,500	720	46
400	204	48,700	336	103,400	713	41
600	316	42,600	294	100,200	691	40
800	427	43,700	301	99,700	687	44
1000	538	41,500	286	94,000	648	45
1200	649	39,500	272	83,000	472	37
1400	760	37,800	261	63,100	435	37
1600	871	25,700	177	36,500	252	51
1800	982	16,000	110	22,500	155	45
2000	1093	8,000	55	13,000	90	40
2200	1204	3,700	26	5,400	37	31