ALLOY X750

AMS 5542 / AMS 5598 / UNS N07750

Products & Sizes		
Coil	**Sheet**	**Precision Reroll Strip**
0.0250" - 0.0680"	0.0250" - 0.0680"	0.0008" - 0.015"

X750 Chemical Composition

	Element	Min	Max
Ni/ Co	Nickel + Cobalt	70.0	
Cr	Chromium	14.0	17.0
Fe	Iron	5.0	9.0
Ti	Titanium	2.25	2.75
Al	Aluminum	0.4	1.0
No/ Ta	Nobelium & Tantalum	0.7	1.2
Si	Silicon		0.50
S	Sulfur		0.01
Cu	Copper		0.50
C	Carbon		0.08
Co	Cobalt		1.00

Industry Standards

- PWA-LCS
- GE Aircraft Engine (GT193)
- GE Aviation S-SPEC-35 AeDMS S-400
- RR SABRe Edition 2
- DFARS Compliant
- W.Nr 2.4669

Industry Applications

- Gas Turbines Discs, Thrust Reversers, Wheels and Ducts
- Aircraft Structures
- Rocket Engines
- Nuclear Reactors
- Heat Treat Fixtures
- Cryogenic Vessels, Springs, and Fasteners
- Exhaust Valves of Diesel Engines

Related Industries

Aerospace

Alternative Energy

Defense

Oil & Gas

Power Generation

Space

Physical Properties

Property	Value
Density, lb/in^3	0.299
Melting Range	2540-2600°F, 1395-1425°C
Curie Temperature	-225°F as hot-rolled -193 triple-heat-treated (2100°F/2 hr, A.C., +1500°F/24 hr, A.C. + 1300°F/20 hr, A.C.)
Magnetic Permeability	70°F, 200H, as hot rolled 1.0020 1.0035 triple-heat-treated (2100°F/2 hr, A.C., +1500°F/24 hr, A.C., +1300°F/20 hr, A.C.)
Emissivity Oxidized Surface	600°F 0.895, 2000°F 0.925
Linear Contraction During Precipitation Treatment	1300°F/20 hr), in/in Hot-rolled 0.00044, 20% Cold-rolled 0.00052, Annealed 0.00026

Mechanical Properties

Property	Value
Ultimate Tensile Strength, ksi	120
.02% Yield Strength, ksi	60
Elongation Percent	30

Heat Treatment	
Specification	**Value**
AMS 5541	1300°F/20 hr., AC (Constant-temperature precipitation treatment).
AMS 5598	1350°F/8 hr., FC to 1150°F, Hold at 1150°F for total precipitation-treating time of 18 hr., AC (Furnace-cool precipitation treatment).