



347 is a stabilized stainless steel that offers excellent resistance to intergranular corrosion following exposure to temperatures in the chromium carbide precipitation range from 800 to 1500°F. It is stabilized by the addition of columbium and tantalum. Type 347 is advantageous for high-temperature service because of its good mechanical properties, as well as its high creep rupture properties.

Specifications

AMS: 5512, 5646

ASTM: A269, A276, A193

ASME: SA 269, SA 276

Chemical Composition, %

	C	Mn	P	S	Si	Cr	Ni	NB/Ta	N	Fe
MIN	.08	200	4.5	.03	75	17-19	9-12	10xcmin- 1 max	10	Bal

Features

- Excellent resistance to inter-granular corrosion
- Advantageous for high-temperature service
- High creep and stress rupture properties

Applications

- Aircraft Collector Rings
- Aircraft Exhaust Stacks
- Boiler Casings
- Cabin Heaters
- Furnace Heating Elements
- Heavy Wall-Welded Equipment
- Chemical Processing
- Gaskets



Physical Properties

Density: .288 lb/in ³ Melting Range: 1398 - 1446°C	
Specific Heat Capacity	500 J/kgK
Thermal Conductivity (@100 °C)	16.3 [W/mK]

Mechanical Properties

Yield Strength, Mpa		205
Tensile Strength, Mpa		515
Elongation, %		40
Hardness [Brinell]		201