

347 Stainless Steel

Smiths Advanced Metals

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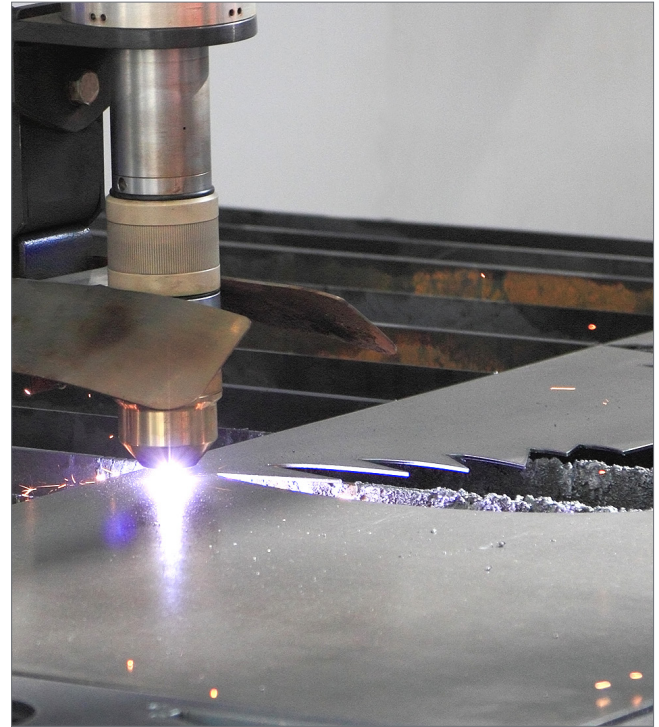
Multi-Purpose Stainless Steel Sheet

Excellent heat & corrosion resistance.

347 is a multi-purpose austenitic stainless steel offering excellent heat and corrosion resistance. With improved mechanical properties when compared to grade 304, the alloy is suitable for more demanding high-temperature applications.

347 stainless steel is stabilised with tantalum and columbium during the alloying process and provides excellent resistance to intergranular corrosion to temperatures ranging from 427 to 816°C (800 to 1500°F). The alloy is therefore highly suitable for service in aqueous and low-temperature environments. The material may be hardened by cold working and is non-magnetic. The weldability of the alloy is also superior. Typical applications include heat exchangers, pressure vessels, nuclear components and aerospace parts.

Smiths Advanced Metals stocks 347 stainless sheets in the solution heat-treated (annealed) condition. Sheets from grade 347 are available in various thicknesses.



Grades / Specifications

- AMS5512
- ASME SA240
- ASTM A240, ATSM A262
- BS S527, BS S500
- MIL-S-6721
- UNS S34700

Grades / Specifications

- Excellent oxidation resistance
- Very good weldability
- Excellent toughness at sub-zero temperatures
- Excellent resistance to intergranular corrosion
- May be hardened by cold working

* Chemical Composition (weight %)

	Cr	Ni	Ng (Cb)	C	Si	Mn	P	S	Mo	Cu	Fe
min.	17.00	9.00	10xC								
Max.	19.00	12.00	1.10	0.08	1.00	2.00	0.040	0.030	0.75	0.75	Bal

* As per AMS 5512

* Mechanical Properties

Size	Tensile Strength	0.2% Yield	Elongation	Density	7.93 kg/m ³
over 0.051-0.076mm (incl.)	483 - 793 MPa	172 MPa min	20% min	Melting Point	1400 - 1425 °C
over 0.076-0.102mm (incl.)	483 - 758 MPa	172 MPa min	30% min	Modulus of Elasticity	190 - 210 GPa
over 0.102mm	483 - 724 MPa	172 MPa min	40% min	Max. use temperature in air	800 °C
				Thermal Expansion	16 - 18 x10 ⁻⁶

* Properties as per AMS 5512.

Physical Properties

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