

347Si

Comparable specifications

ASME SFA A 5.9: ER347Si
EN ISO 14343-A: 19 9 Nb Si
Werkstoff Nr.: 1.4551

Description and applications*

* *Illustrative, not-exhaustive list*

Austenitic stainless steel filler metal with a significant presence of niobium, that provides resistance to intergranular chromium carbide precipitation and thus increased resistance to intergranular corrosion. The high silicon content improves the usability of the filler metal in the gas metal arc welding process.

Good general corrosion resistance and pitting corrosion resistance.

This grade may be used for:

- welding and overlay of chromium-nickel stainless steel base metals of similar composition stabilized either by Nb or Ti (e.g. types 321 and 347);
- applications at temperatures higher than 400°C;
- applications for the chemical industry, particularly at high temperatures (e.g. equipments intermittently heated within a temperature ranges varying from 450°C to 800°C) a/o for applications such as firewalls and pressure vessels;
- applications for the food processing, dairy, oil and textile industry due to its good corrosion resistance.

Weldable base materials*

* *Illustrative, not-exhaustive list*

All 300 series austenitic stainless steel, particularly 321 and 347 (stabilized).

All-weld metal mech. properties*

* *For reference only values*

Tensile strength (Rm): ≥ 550 N/mm² **Yield Strength (Rp_{0.2}):** ≥ 350 N/mm²
Elongation: ≥ 25% **Charpy-V Impact (R.T.):** ≥ 50 J

Chemical composition*

* *For reference only values*

C	Mn	Si	S	P	Ni	Cr	Mo	Cu	Nb
max	1.00	0.65	max	max	9.00	19.00	max	max	10xC
0.08	2.50	1.00	0.020	0.030	11.00	21.00	0.50	0.50	1.00

