



CLASSIFICATIONS

EN ISO 14343-A	AWS A5.9
W 19 9 Nb Si	ER347Si

KEY FEATURES AND APPLICATIONS

- Solid corrosion resisting chromium-nickel wire for welding of austenitic chromium nickel alloys of 18 % Cr-8 % Ni-type.
- Primarily used for welding and overlays of stainless-steel base materials of a similar composition, especially those stabilised with Niobium (Nb) or Titanium (Ti), like types 321 and 347.
- Thanks to the increased niobium content, this alloy prevents intergranular chromium carbide precipitation, leading to enhanced intergranular corrosion resistance.
- The increased silicon content makes the weld pool more fluid, resulting in a smooth-looking weld deposit.
- Typically used in the chemical industry, especially for high-temperature applications like equipment intermittently heated between 400°C and 800°C.

BASE MATERIALS

1.4541, 1.4550, 1.4552 1.4319, 1.4306, 1.4306, 1.4301, 1.4303, 1.4308, 1.4310, 1.4312, 1.4878, (1.4000, 1.4001, 1.4002, 1.4003, 1.4006) X 6 NiTi 18 10, X 6CrNiNb 18 10, G-X 5CrNiNb 18 9, X 5CrNi 18 7, X 2CrNi 19 11, G-X 2CrNi 18 9, X 5CrNi 18 10, X 5CrNi 18 12 G-X, 6CrNi 18 9, X 12CrNi 17 7, G-X 10CrNi 18 8
 AISI: 321, 347

CHEMICAL COMPOSITION OF WIRE %

	C	Si	Mn	P	S	Cr	Ni	Mo	Cu	Nb
MIN	-	0.65	1.0	-	-	19.0	9.0	-	-	10 x C
MAX	0.08	1.2	2.5	0.03	0.2	21.0	11.0	0.5	0.5	1.0

Single values are maximum values according to EN ISO 14343

MECHANICAL PROPERTIES OF ALL-WELD METAL - TYPICAL (MIN.) VALUES

Yield Strength (MPa)	Tensile Strength (MPa)	Elongation (%)
490 (≥350)	650 (≥550)	34 (≥25)

Test data for mechanical properties are not guaranteed since actual as welded conditions depend on numerous variables

OPERATING DATA

Shielding Gases	Polarity
EN ISO 14175 - I1	DC-

PACKAGING AND AVAILABLE SIZES

Part Number	Diameter (mm)	Length (mm)	Weight (kg)	Packaging
XP30382	1.6	1000	5	PAP 20 Tube
XP30384	2.4	1000	5	PAP 20 Tube
XP30385	3.2	1000	5	PAP 20 Tube