



DAIKOWM 347Si



AUSTENITIC STAINLESS STEELS
347

DESCRIPTION

Solid wire for stabilised austenitic stainless steels

These Cr-Ni consumables are Nb-stabilized for welding steels that are stabilized with Ti or Nb. Nb it reduces intergranular corrosion under severe operation conditions. Also suitable for cladding as on mild steel after a 309 buffer layer. Service temperatures are typically -100°C to about 400°C. The higher silicon content (if compared with standard 347) increases the welding fluidity and improve the bead appearance.

SPECIFICATIONS

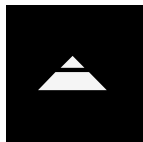
ISO 14343-A	G 19 9 Nb S	AWS A5.9	ER347Si
Certifications	CE	Shielding	M12, M13
Positions	PA, PB, PC, PD, PE, PF, PG	Current	DC+
Packaging Type	Drums, B300, D200 and D100 spools.		

ASME QUALIFICATIONS	FERRITE	PREN	HARDNESS
F-No (QW432)	6	3-12 FN	19.165
A-No (QW442)	8		84HRB

CHEM. COMP. %	DEFAULT	MECHANICAL PROPERTIES	MIN	VARIANT
C	0.05	Tensile strength R _m MPa	550	650
Mn	0.7	Yield strength R _{p0.2} MPa	350	475
Ni	10	Elongation A (L ₀ =5d ₀) %	25	32
Cr	19	Impact Charpy ISO-V	-	120J @ -120°C
Nb	0.4	Impact Charpy ISO-V	-	-
P	0.02			
S	0.01			
Mo	0.05			
Si	0.9			
Cu	0.07			

WELDING PARAMETERS	1 mm	1.2 mm
Ampere	160A - 220A	200A - 270A
Voltage	25V - 29V	26V - 30V
Packaging	Ø 0,8÷1,6mm	Ø 0,8÷1,6mm
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APPLICATION

Developed for welding Ti and Nb-stabilized 18Cr/8Ni stainless steel types 321 and 347, they are also suitable for unstabilized grades like 304/304L. Service temperatures typically range from -100°C to about 400°C. The applications parallel those of 308L, covering diverse sectors such as food, brewery, pharmaceutical equipment, architectural and general fabrication, and nuclear engineering. However, the 347 consumables mentioned here are generally unfit for elevated temperature structural applications where 0.04-0.08% carbon is specified for creep resistance; for such cases, consult data sheets 347H. For cryogenic uses requiring >0.38mm (15mils) Charpy lateral expansion at -196°C, select unstabilized weld metal with low carbon and controlled ferrite. No preheating requirement, a recommended maximum interpass temperature of 250°C, and no post-weld heat treatment (PWHT) necessity.

ALLOY TYPE

347 austenitic stainless steel for joining 321 and 347 base materials.

MICROSTRUCTURE

Austenite with a controlled level of ferrite, normally in the range 3-12FN.

MATERIALS

EN W.Nr.: 1.4541, 1.4543, 1.4561, 1.4550, 1.4552 (cast)

ASTM: 321, 347, CF8C (cast)

UNS: S32100, S34700

