



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

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

ASME QUALIFICATIONS

F-No (QW432)	6
A-No (QW442)	8

FERRITE

3-12 FN

PREN

19.165

HARDNESS

84HRB

CHEM. COMP. %

C	0.05
Mn	0.7
Ni	10
Cr	19
Nb	0.4
P	0.02
S	0.01
Mo	0.05
Si	0.9
Cu	0.07

MECHANICAL PROPERTIES

	MIN. PER STANDARD	PRODUCT
Tensile strength R_m MPa	550	650
Yield strength $R_{p0.2}$ MPa	350	475
Elongation A ($L_0=5d_0$) %	25	32
Impact Charpy ISO-V	-	120J @ -120°C
Impact Charpy ISO-V	-	-

WELDING PARAMETERS

	1.0 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
Packaging Type	Drums, B300, D200 and D100 spools.	Drums, B300, D200 and D100 spools.





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APPLICATION

This material is designed for welding 18/8 stainless steels, specifically types 321 and 347, stabilized with titanium and niobium. It is also compatible with non-stabilized grades such as 304/304L. Typical operating temperatures range from -100 °C to about 400 °C. The main applications include the food industry, breweries, pharmaceutical equipment, construction, general engineering, and nuclear engineering. However, 347 series consumables are generally not recommended for structural applications at high temperatures where a carbon percentage between 0.04% and 0.08% is required for creep resistance, as specified in the 347H data sheets. For cryogenic applications requiring a Charpy lateral expansion greater than 0.38 mm at -196 °C, it is preferable to use a non-stabilized filler metal with low carbon content and controlled ferrite. Preheating is not necessary and the maximum interpass temperature is 250 °C; post weld heat treatment (PWHT) is not required.

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

