



DAIKOFCW 347



AUSTENITIC STAINLESS STEELS
347

DESCRIPTION

Rutile flux cored wire for flat and horizontal position

The easy handling and the high deposition rate result in high productivity, excellent welding performance and very low spatter formation. The self-releasing slag makes cleaning and pickling easier providing together with increased travel speeds noticeable savings in time and costs. The wire shows good wetting behaviour and a finely rippled surface pattern. These Cr-Ni consumables are usually used for welding chromium-nickel stainless steel base metals of similar composition stabilized with either Nb or Ti.

SPECIFICATIONS

EN ISO 17633-A	T 19 9 Nb P	AWS A5.22	E347T0-1/4
Shielding	M21	Positions	PA, PB, PC
Current	DC+	Packaging Type	B5300 spool

ASME QUALIFICATIONS

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F-No (QW432)	6	3-12 FN	18.8
A-No (QW442)	8		84HRB

CHEM. COMP. %

CHEM. COMP. %	DEFAULT	MECHANICAL PROPERTIES	MIN. PER STANDARD	PRODUCT
C	0.03	Tensile strength R _m MPa	550	610
Mn	1.2	Yield strength R _{p0.2} MPa	350	440
Ni	10.3	Elongation A (L ₀ =5d ₀) %	25	37
Cr	18.8	Impact Charpy ISO-V	-	80J
P	0.025	Impact Charpy ISO-V	-	-
S	0.005			
Si	0.45			

WELDING PARAMETERS

	1.2 mm	1.6 mm
Ampere	120A - 280A	200A - 350A
Voltage	22V - 30V	26V - 30V
Packaging	Ø 1,2÷1,6mm	Ø 1,2÷1,6mm
Packaging Type	B5300 spool	B5300 spool

NOTES

D200 spool and Ø 1,0 mm available upon request.



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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

