



DAIKOFCW 347P



AUSTENITIC STAINLESS STEELS

347

DESCRIPTION

Rutile all position flux cored wire for 321 and 347 stainless steel base materials

Austenitic rutile flux cored wire for welding and cladding in all positions thanks to the fast-freezing slag. It offers excellent weldability, easy handling and slag control in all positions resulting in high productivity with outstanding welding performance. This consumable is used to weld titanium and niobium stabilized stainless steels types 321 and 347. Also suitable for unstabilized grades such as 304/304L. Typically service temperature is -100 to +400°C.

SPECIFICATIONS

ISO 17633-A	T 19 9 Nb P C1/M21 2	AWS A5.22	E347T1-1/4
DIN	-	Werkstoff Number	-
Certifications	CE, TUV	Shielding	M21, C1
Positions	PA, PB, PC, PD, PE, PF, PG	Current	DC+

ASME QUALIFICATIONS

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

FERRITE

3-12 FN

PREN

19

HARDNESS

84HRB

CHEM. COMP. %

	DEFAULT
C	0.03
Mn	1.3
Ni	10.5
Cr	19
Nb	0.6
P	0.02
S	0.04
Si	0.6

MECHANICAL PROPERTIES

	MIN	VARIANT
Tensile strength R_m MPa	550	610
Yield strength $R_{p0.2}$ MPa	350	420
Elongation A ($L_0=5d_0$) %	25	30
Impact Charpy ISO-V	-	80J
Impact Charpy ISO-V	-	-

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	BS300 spool	BS300 spool

V 01/2024



The information in this datasheet is the result of detailed research and is considered accurate as of the publication date. However, we cannot guarantee its complete accuracy, and it is subject to change without notice. Actual results may vary due to many factors like welding procedures, material composition, temperature conditions, bevel configuration, and specific manufacturing techniques. We accept no liability for any errors or omissions in this datasheet. For the most current information, please visit www.daikowelding.com.





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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.

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