DAIKOFCW 308L

FCAW

AUSTENITIC STAINLESS STEELS
308L

DESCRIPTION

Rutile flux cored wire for flat and horizontal position

Austenitic rutile flux cored wire for welding and cladding in 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 consumables are used to weld 304L stainless steels (18Cr/8Ni) base materials.

SPECIFICATIONS

EN ISO 17633-A	T 19 9 L R C1/M21 3	**AWS A5.22**	E308LT0-1/4
Certifications	CE, TUV	**Shielding**	M21, C1
Positions	PA, PB, PC	**Current**	DC+
Packaging Type	BS300 spool		

ASME QUALIFICATIONS

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

FERRITE

3-12 FN

PREN

19.83

HARDNESS

76HRB

CHEM. COMP. %

	DEFAULT
C	0.02
Mn	1.6
Ni	10
Cr	19.5
P	0.02
S	0.01
Mo	0.1
Si	0.6

MECHANICAL PROPERTIES

	MIN. PER STANDARD	PRODUCT
Tensile strength R_m MPa	510	520
Yield strength $R_{p0.2}$ MPa	320	340
Elongation A (L_0=5d_0) %	30	40
Impact Charpy ISO-V	-	40J @ -20°C
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

NOTES

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

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APPLICATION

The 308L subfamily is specifically designed for the welding of 18/8 series stainless steels, including 301, 302, 303, and 304LN that contain nitrogen, as well as titanium-stabilized steels such as 321. The operating temperature range generally extends from -100°C to about 400°C. These consumables are ideal for a variety of applications ranging from the food sector to breweries, pharmaceutical equipment, construction and general building, to nuclear engineering. However, 308L products are not suitable for use with 304/304H steels in structural applications requiring high temperatures; for these needs, it is recommended to consult technical sheets C-10 and C-12. Similarly, for cryogenic applications (-196°C), it is advisable to refer to technical sheet B-37. No preheat is necessary and the maximum interpass temperature is set to 250°C; also, no post-weld heat treatment (PWHT) is required.

ALLOY TYPE

308L austenitic stainless steels for joining 304L base materials.

MICROSTRUCTURE

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

MATERIALS

EN W.Nr.: 1.4306 (X2CrNi19-11), 1.4301 (X5CrNi18-10), 1.4311 (X2CrNiN18-10), 1.4308 (X5CrNi19-10), 1.4541 (X6CrNiTi18-10), 1.4543 (X 3 CrNiCuTi 12-9), 1.4561 (X1CrNiMoTi18-13-2), 1.4550 (X6CrNiNb18-10)+
ASTM: 304L, 304, 304LN, CF3, CF8, 321, 347
UNS: S30403, S30400, S30453, S32100, S34700

WELDING & PWHT

Supply of welding consumables with optimized performance for strength and durability, including special alloys for high-temperature applications.

DAIKO