DAIKOWM 308LSi

GMAW

AUSTENITIC STAINLESS STEELS
308L

DESCRIPTION

Solid wire for 304L base materials with silicon

These consumables are used to weld 18/8 stainless steels. Mainly applications include food industries, pharmaceutical equipment and general fabrication. Typical service temperatures are -100°C to 400°C. The higher silicon content (if compared with standard 308L) increases the welding fluidity and improve the bead appearance. Higher silicon content also improves wetting of the weld metal and potentially higher travel speeds compared to standard 308L products.

SPECIFICATIONS

EN ISO 14343-A	G 19 9 L Si	**AWS A5.9**	ER308LSi
Certifications	CE, TUV, DB	**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

20.33

HARDNESS

76HRB

CHEM. COMP. %

C	0.01
Mn	1.7
Ni	10
Cr	20
P	0.015
S	0.01
Mo	0.1
Si	0.8
Cu	0.15

MECHANICAL PROPERTIES

	MIN. PER STANDARD	PRODUCT
Tensile strength R_m MPa	510	580
Yield strength $R_{p0.2}$ MPa	320	460
Elongation A (L_0=5d_0) %	25	40
Impact Charpy ISO-V	-	60J @ -196°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.

DAIKO

308L

DESCRIPTION

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.

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