



DAIKOWT 308L

GTAW

AUSTENITIC STAINLESS STEELS
308L

DESCRIPTION

Rod for base materials in 304L

Rods developed for welding 18/8 stainless steels. The main applications include the food industry, pharmaceutical equipment, and general fabrication. Service temperatures from -100 °C to 400 °C. The low carbon content ensures high resistance to intergranular corrosion, while excellent corrosion resistance is maintained even in harsh conditions, such as exposure to oxidizing acids and cold or diluted reducing acids. They are also suitable for titanium and niobium stabilized steels like 321 and 347, when used at temperatures not exceeding 400 °C.

SPECIFICATIONS

EN ISO 14343-A	W 19 9 L	AWS A5.9	ER308L
Certifications	CE, TUV, DB	Shielding	11
Positions	PA, PB, PC, PD, PE, PF	Current	DC-
Packaging Type	5kg carton tube		

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	0.4
Cu	0.15

MECHANICAL PROPERTIES

	MIN. PER STANDARD	PRODUCT
Tensile strength R_m MPa	510	600
Yield strength $R_{p0.2}$ MPa	320	460
Elongation A ($L_0=5d_0$) %	25	35
Impact Charpy ISO-V	-	80J @ -130°C
Impact Charpy ISO-V	-	70J

WELDING PARAMETERS

	1.6 mm	2.4 mm
Ampere	80A - 100A	110A - 160A
Voltage	-	-
Packaging	Ø 1,0÷4,0 mm	Ø 1,0÷4,0 mm
Packaging Type	5kg carton tube	5kg carton tube



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DESCRIPTION

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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.

