



DAIKOWM 308L



AUSTENITIC STAINLESS STEELS

308L

DESCRIPTION

Solid wire for 304L base materials

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. Reduced carbon levels offer increased resistance to inter-granular corrosion. Very good corrosion resistance under fairly severe conditions, such as in oxidizing acids and cold or dilute reducing acids. The wire can also be used for welding titanium and niobium stabilized steels such as 321 and 347 when the construction is used at temperatures not exceeding 400°C.

SPECIFICATIONS

ISO 14343-A	G 19 9 L	AWS A5.9	ER308L
DIN	-	Werkstoff Number	-
Certifications	-	Shielding	M12, M13
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

20.33

HARDNESS

76HRB

CHEM. COMP. %

DEFAULT

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	VARIANT
Tensile strength R_m MPa	510	570
Yield strength $R_{p0.2}$ MPa	320	435
Elongation A ($L_0=5d_0$) %	25	42
Impact Charpy ISO-V	-	60J @ -196°C
Impact Charpy ISO-V	-	-

WELDING PARAMETERS

	1 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.

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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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DESCRIPTION

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APPLICATION

Engineered for welding 18Cr/8Ni stainless steels, encompassing 301, 302, 303, nitrogen-bearing 304LN, and titanium-stabilized 321, these welding consumables offer versatile performance. They perform well in service temperatures ranging from -100°C to about 400°C, making them suitable for applications in food, brewery, pharmaceutical equipment, architectural and general fabrication, as well as nuclear engineering. It's important to note that these consumables, specifically 308L, are not recommended for elevated temperature structural applications involving 304/304H; refer to 308H for such applications. For cryogenic use at -196°C, consult 308LCF. No preheating is required, and the recommended maximum interpass temperature is 250°C, with no post-weld heat treatment necessary.

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 (X2CrNi18-10), 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.

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