



G-TECH 308LR

SMAW

AUSTENITIC STAINLESS STEELS

308L

DESCRIPTION

Rutile coated electrode for 308 austenitic stainless steels base materials

Its rutile coating ensures excellent weldability in all positions, except for vertical down, and a high resistance to cracking providing smooth arc transfer. High current carrying capacity, minimum spatter formation and virtually self-cleaning slag produce a concave bead with minimal ripple as well as a smooth and clean weld profile. These electrodes are used to weld 18Cr/8Ni stainless steels. Mainly applications include food industries, pharmaceutical equipment and general fabrication. Typical service temperatures are -100°C to 400°C.

SPECIFICATIONS

ISO 3581-A	E 19 9 LR 12	AWS A5.4	E308L-17
DIN	-	Werkstoff Number	-
Certifications	CE, TUV	Shielding	-
Positions	PA, PB, PC, PD, PE, PF	Current	DC+, AC

ASME QUALIFICATIONS

F-No (QW432)	5
A-No (QW442)	8

FERRITE

3-12 FN

PREN

18.83

HARDNESS

76HRB

CHEM. COMP. %

	DEFAULT
C	0.02
Mn	0.6
Ni	10.5
Cr	18.5
P	0.02
S	0.01
Mo	0.1
Si	0.8
Cu	0.1

MECHANICAL PROPERTIES

	MIN	VARIANT
Tensile strength R_m MPa	510	520
Yield strength $R_{p0.2}$ MPa	320	320
Elongation A ($L_0=5d_0$) %	30	35
Impact Charpy ISO-V	-	50J @ 20°C
Impact Charpy ISO-V	-	40J @ -196°C

WELDING PARAMETERS

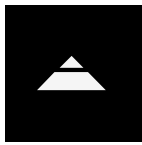
	2.5 mm	3.2 mm	4 mm	
Ampere	50A - 75A	80A - 110A	110A - 150A	160A -
Voltage	-	-	-	
Packaging	56 pcs/kg	28 pcs/kg	19 pcs/kg	12 pcs/kg
Packaging Type	Carton box	Carton box	Carton box	Carton box

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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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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.

