

TFW-309L

AWS A5.22 E309LT1-1
EN ISO 17633-A-T 23 12 L P C 1
JIS Z 3323 TS309L-F C 1

Characteristics and Applications:

TFW-309L is designed for 100% CO₂ gas shielding and all position welding. It is commonly used for welding similar alloys in wrought or cast forms, or used in dissimilar welding, such as low alloy steel, heat-resistant steel and clad steel.

Notes on usage:

1. Before welding, oil, rusty, and moisture should be cleaned off the base material that should have the proper protection from the wind in welding site.
2. Use 99.8% purity or higher CO₂ shielding gas.
3. Keep the product dry, while it is stored or delivered.

Typical chemical composition of weld metal (wt%):

	C	Mn	Si	P	S	Cr	Ni
AWS	≤ 0.04	0.5-2.5	≤ 1.0	≤ 0.04	≤ 0.03	22.5-25.0	12.0-14.0
EN ISO	≤ 0.04	≤ 2.5	≤ 1.0	≤ 0.030	≤ 0.025	22.5-25.0	12.0-14.0
Typical value	0.026	1.40	0.55	0.021	0.008	24.07	12.78

Typical mechanical properties of weld metal:

	Tensile strength MPa(ksi)	Elongation %	Charpy V-Notch J (ft-lbf) -46°C (-51°F)
AWS	≥ 520 (75)	≥ 30	-
EN ISO	≥ 510 (74)	≥ 25	-
Typical value	546 (79)	36	42(31)

Welding position:



Sizes and recommended parameter range (DC < + >):

Stick out:15-20(mm),flow rate:20-25(l/min):

Position	Diameter (mm)	1.2	1.6
	F, HF		150A-220A/25V-33V
H		140A-180A/25V-29V	200A-300A / 27V-35V
V-UP		130A-160A/24V-28V	160A-200A / 24V-27V
OH		150A-180A/25V-29V	-

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