

# TFW-309L

JIS Z 3323 TS309L-FC1  
AWS A5.22 E309LT1-1  
EN 12073 T 23 12 L P C 1

## Characteristics and Applications:

TFW-309L is designed for 100% CO<sub>2</sub> 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, the base material should be cleaned from oil, rusty, moisture and the welding place should have the proper protection from the wind.
2. Use 99.8% purity or higher CO<sub>2</sub> shielding gas. Maintain the flow rate not less than 20L/min when wire diameter is 1.2 or 1.6 mm.
3. Trailer Shield is required to ensure the weld pool completely shielded until solidification is complete and no porosity problem.
4. Keep dry while in storage and delivery.

## Typical chemical composition of weld metal (wt%)

C	Mn	Si	P	S	Mo	Cr	Cu	Ni
0.026	1.51	0.55	0.024	0.009	0.06	24.07	0.07	12.78

## Typical mechanical properties of weld metal

TS (MPa) (kgf/mm <sup>2</sup> )	EL %	CVN -60°C J (kgf-m)
586	39	32

## Welding position



## Sizes and recommended current range ( DC <+> )

Diameter (mm)	1.2	
Welding condition	A	V
F、HF	130-220	24-33
H	140-180	25-29
V-UP	130-160	24-28
OH	150-180	25-29

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