# TFW-309L

AWS A5.22 E309LT1-1
EN ISO 17633-A-T 23 12 L P C1 1
JIS Z 3323 TS309L-F C 1

## Characteristics and Applications:

TFW-309L is designed for 100% $CO_2$ 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 $CO_2$ shielding gas.
3. Keep the product dry, while it is stored or delivered.

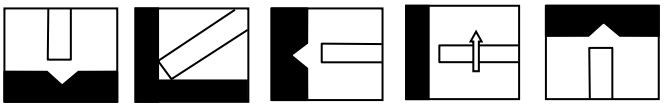
## Typical chemical composition of weld metal (wt%):

| | 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 % |
|---|---|---|
| AWS | ≧520 (75) | ≧30 |
| EN ISO | ≧510 (74) | ≧25 |
| Typical value | 546 (79) | 36 |

## 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-240A/25V-32V | 180A-300A / 27V-35V |
| H | 140A-240A/25V-32V | 180A-300A / 27V-35V |
| V-UP | 130A-160A/24V-28V | 160A-200A / 24V-28V |
| OH | 150A-180A/25V-28V | - |

FLUX CORED WIRES



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