

# TFW-2209

AWS A5.22 E2209T1-1  
EN ISO 17633-A-T 22 9 3 N L P C 1 1

## Characteristics and Applications:

TFW-2209 is a flux-cored wire that is suitable for the welding of duplex stainless steel such as UNS S31803 (Alloy 2205). Excellent pitting corrosion resistance, stress corrosion resistance and crack resistance can be obtained. It is suitable for the welding of heat exchanger, chemical equipments and pipes.

## Notes on usage:

1. 100% CO<sub>2</sub> shielding gas with 99.8% purity is recommended.
2. Clean the surface of base metal completely to prevent the contamination.
3. Trailer Shield is essential to ensure the weld pool being completely shielded before complete solidification with no porosity problem.
4. The welding place should have the proper protection from wind to prevent generating the welding defects due to improper gas shielding.
5. Keep the product dry, while it is stored or delivered.

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

	C	Mn	Si	P	S	Cr	Ni	Mo	N	Cu
AWS	≤ 0.04	0.5-2.0	≤ 1.0	≤ 0.04	≤ 0.03	21.0-24.0	7.5-10.0	2.5-4.0	0.08-0.20	≤ 0.75
EN ISO	≤ 0.04	≤ 2.5	≤ 1.2	≤ 0.030	≤ 0.025	21.0-24.0	7.5-10.5	2.5-4.0	0.08-0.20	≤ 0.5
Typical value	0.029	0.85	0.60	0.025	0.006	22.57	9.33	3.45	0.16	0.05

## Typical mechanical properties of weld metal:

	Yield strength MPa(ksi)	Tensile strength MPa(ksi)	Elongation %
AWS	-	≥ 690(100)	≥ 20
EN ISO	≥ 450(65)	≥ 550(80)	≥ 20
Typical value	680(99)	786(114)	26

## Welding position:



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

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

Position	Diameter (mm)	1.2
F, HF		180A-220A/24V-32V
H		160A-220A/24V-32V
V-UP		130A-160A/24V-28V
OH		150A-180A/24V-28V

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