

# TS-2209

AWS A5.4 E2209-16  
EN ISO 3581-B-ES2209-16  
JIS Z 3221 ES2209-16

## Characteristics and Applications:

TS-2209 is designed to weld duplex stainless steels such as UNS S31803 (Alloy 2205). It provides excellent pitting corrosion resistance, stress corrosion resistance and crack resistance. It is suitable for welding application of heat exchanger, chemical equipments and pipes.

## Notes on usage:

1. Be sure to clean up the contaminations on the base metal, groove and pass to pass with stainless steel brush.
2. Maintain short arc length. Moving range should be controlled within 2.5 times of the wire's dia when you are welding with weave method.
3. Dry the electrodes at 250~300°C for 60 minutes before using. Take out a batch of half day consumption and keep in the environment at 100~150°C during welding process.
4. Use lower current to prevent from crack and minimize base metal dilution.

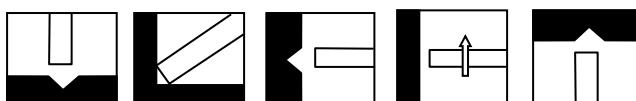
## Typical chemical composition of weld metal (wt%):

	C	Mn	Si	P	S	N	Cr	Ni	Mo	Cu
AWS	≤0.04	0.5-2.0	≤1.00	≤0.04	≤0.03	0.08-0.20	21.5-23.5	8.5-10.5	2.5-3.5	≤0.75
EN ISO	≤0.04	0.5-2.0	≤1.00	≤0.04	≤0.03	0.08-0.20	21.5-23.5	7.5-10.5	2.5-3.5	≤0.75
Typical value	0.025	1.00	0.50	0.035	0.008	0.14	22.2	9.2	3.2	0.19

## Typical mechanical properties of weld metal:

	Tensile strength MPa(ksi)	Elongation %
AWS	≥690(100)	≥20
EN ISO	≥690(100)	≥15
Typical value	785(114)	28

## Welding position:



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

Diameter (mm)	2.6	3.2	4.0	4.8
Length (mm)	300	350	350	350
Amps	F	60-90	80-130	130-170
	V&OH	50-70	70-110	100-130

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