# SAIW 2209T0-1

GB/T 17853 E2209T0-1 AWS A5.22 E2209T0-1

**Characteristics:** SAIW 2209T0-1 is a duplex stainless steel flux-cored wire with nominal composition of 22% Cr-8.5% Ni-3.5Mo-0.15N. The shielding gas is 100% CO<sub>2</sub>. The deposited structure is austenite and ferrite duplex structure. It has good stress corrosion resistance, pitting corrosion resistance, high strength and hardness. It is suitable for flat position and horizontal welding, with excellent welding performance, stable arc, low spatter and beautiful bead shape and profile. **Application:** This product can be widely used in chemical tankers, chemical equipment, water treatment equipment and other industries. It is commonly used for duplex stainless steel with a 22% Cr content, such as 2205 (UNS S31803).

Element (wt%)	С	Cr	Ni	Mn	Мо	Si	Cu	Р	S	N
Standard value	0.04	21.0~24.0	7.5~10.0	0.5~2.0	2.5~4.0	1.0	0.5	0.04	0.03	0.08~0.2
Typical value	0.02	22.72	9.19	0.97	3.19	0.64	0.01	0.02	0.02	0.12
Ferrite	32%			Equivalent value of pittingresistance						

#### Chemical composition of deposited metal

Note: the content of Mo and CU is required ≤0.75% by AWS A5.22 and ≤0.5% by GB/T 17853.

### Mechanical properties of deposited metal

Testing status	Testing temperature(℃)	Tensile strength(MPa)	Yield strength(MPa)	Elongation(%)	
Standard value	room temperature	≥690		≧20	
As-Welded condition	room temperature	760		40.6	

## Shielding gases, polarity and welding position

Gas composition	Power polarity	Welding position
100%CO <sub>2</sub>		

## **Recommended welding specifications**

Wire diameter (mm)	Arc voltage (V)	Welding current (A)	Wire stick-out (mm)	Welding speed (cm/min)	Gas flow rate
1.0	23-31	50-160	15-20	20-80	
1.2	26-31	160-220	15-20	20-60	15-25
1.6	26-33	200-300	15-20	20-60	