



Quality Management System  
in accordance with  
**ISO 9001**  
Cert # 05-R0925

# Premium 2209T1-1/4 Flux Cored Wire

U.S. ALLOY CO.  
dba Washington Alloy  
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## ALLOY DESCRIPTION AND APPLICATION;

Premium 2209T1-1/4 duplex stainless-steel flux cored electrodes are used to weld 22% chromium duplex stainless steel such as 2205, 2209, 2304 and other proprietary duplex stainless steels. It has a smooth-running arc that deposits very high tensile strength, with resistance to stress, corrosion, cracking and pitting... Premium 2209 T1-1/4 may also be a good choice when welding Duplex stainless such as 2553 to carbon steels or other grades of stainless. Duplex has a two-phase microstructure of austenite and ferrite giving it great pitting or stress corrosion cracking and attack.

## TYPICAL WELDING PROCEDURES; DCEP

Wire Diameter	Wire Speed (ipm)	Amps	Volts	Electrical Stickout	CO <sub>2</sub> (cfh)
0.045	215-450	140-220	25-30	1/2-1"	35-50
1/16"	175-315	190-310	28-31	5/8-1"	35-50

Procedures are base on flat position and may vary with change in position, base metals, filler metals, equipment and other changes.

## TYPICAL CHEMISTRY (%) & WELD METAL PROPERTIES

	AWS	Premium 2209		AWS	Premium 2209
Carbon	0.04	0.02	Molybdenum	2.50-4.00	3.43
Manganese	0.50-2.0	1.11	Phosphorus	0.04	0.033
Silicon	1.00	0.53	Sulfur	0.03	0.001
Chromium	21.0-24.0	22.47	Nitrogen	0.08-0.20	0.10
Nickel	7.50-10.0	9.22	Copper	0.50	0.01
Elongation	20%	32%	Tensile Strength (psi)	100,000	120,465

Iron balance and all single values are maximum percentages ; PWHT 2050F 3

**AVAILABLE SIZES:** TCD 2209T1-1 = .045, 1/16"

Other sizes available – please inquire

T0 = flat and horizontal; T1 = all position; -1 is for 100% CO<sub>2</sub>; -4 = 75-80 Ar /CO<sub>2</sub>

**SPECIFICATIONS;** ANSI/AWS A5.22 E2209T1-1  
ASME SFA 5.22 E2209T1-1  
ASME F-6

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