

Inweld 2209

AWS A5.9 ER2209

Chemical Composition of Inweld 2209

Fe	C	Cr	Ni	Mo	Mn	Si	P	S	N	Cu
Balance	0.03	21.5-	7.5-	2.5-	0.50-	0.90	0.03	0.03	0.08-	0.75
		23.5	9.5	3.5	2.00				0.20	

Single values are maximum unless otherwise specified.

Description and Applications

Inweld ER2209 is used primarily to weld duplex stainless steels which contain approximately 22 percent of chromium such as UNS S31803 (alloy 2205). Deposits have “duplex” microstructures consisting of an austenite-ferrite matrix. This product over matches the base metal by 2-3% in nickel content so as to give the correct balance of austenite and ferrite in the microstructure in the as-welded condition. Inweld ER2209 is characterized by high tensile strength, resistance to stress corrosion cracking, and improved resistance to pitting.

Typical Weld Metal Properties

	<u>AWS Spec</u>
Tensile Strength:	100,000 psi
Yield Strength:	80,000 psi
Elongation:	20%

Recommended Parameters

GMAW (DCEP – Electrode+)

<u>Wire Diameter</u>	<u>Voltage</u>	<u>Amperage</u>
0.035”	19-21	90-120
0.045”	28-32	180-250
1/16”	29-30	200-300

GTAW (DCEN – Electrode-)

<u>Wire Diameter</u>	<u>Voltage</u>	<u>Amperage</u>
1/16”	14-18	90-130
3/32”	15-20	120-175
1/8”	15-20	150-220

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