



Techalloy 2209

Description

Techalloy 2209 is a filler metal designed to weld 22% chromium duplex stainless steels such as UNS S31803 and S32205. The weld metal poses a high tensile and yield strength. This grade has very good resistance to stress corrosion cracking and pitting corrosion with typical pitting resistance equivalent number (PREN) of 35-36.

The wire chemical composition results in a lower ferrite content than the base metal for improved weld ability.

Specifications & Approvals

AWS A5.9 ER2209

UNS S39209

ISO 14343:2009 (22 9 3 N L)

CWB

Typical Chemical Composition

C	Mn	Si	Cr	Mo	Ni	Nb	N	S	P	Cu	FN (WRC)
.01	1.6	.4	22.8	3.1	8.7		.16	.017	.014		40 min

Typical Mechanical Properties

Tensile Strength	108,000 PSI	740 MPA
Yield Strength	93,000 PSI	640 MPA
Elongation	42%	

Welding Parameters

	Shielding	Gas Flow	Diameter	Voltage	Amperage
Mig Welding	Argon + 2-5% CO2	30 to 50 CFH	.035" (0.9mm) .045" (1.14mm) .062" (1.6mm))	26 to 29 28 TO 32 29 TO 33	160/210 180/250 200/280
Tig Welding	Argon with up to 2% Nitrogen				
Sub Arc Welding	Suitable flux may be used		3/32" (2.5mm) 1/8" (3.14mm) 5/32" (4.0mm)	28 to 33 29 TO 32 30 TO 33	275/350 350/450 400/550

Standard Packages:

Mig Wire– 33# wire basket	Tig Wire– 10# tube/30# Master Carton	SAW– 60# Coil
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