

Techalloy® 310

AWS ER310

CONFORMANCES

AWS A5.9 ER310

UNS S31080

ISO 14343: 2009 (25 20)



Techalloy® 310 electrodes are used for welding stainless steels of similar composition in cast and wrought forms. The weld deposit is fully austenitic, and as such, calls for minimal heat input during welding.

Applications: Head shields, Furnace parts, Ducting

DIAMETERS / PACKAGING

Diameter in (mm)		MIG WIRE 33 lb (14.9 kg) Wire Basket	TIG WIRE 10 lb (4.5 kg) Tube 30 lb (13.6 kg) Master Carton	SAW WIRE 55 lb (25 kg) Coil
0.035	(0.9)	MG310035667		
0.045	(1.2)	MG310045667		
1/16	(1.6)	MG310062667	TG310062638	SA310062726
3/32	(2.4)		TG310093638	SA310093726
1/8	(3.2)		TG310125638	

DEPOSIT COMPOSITION

	%C	%Cr	%Ni	%Mo	%Mn
Requirements AWS ER310	0.08 - 0.15	25.0 - 28.0	20.0 - 22.5	0.75 max.	1.0 - 2.5
Typical Performance Techalloy® 310	0.11	27.1	21.0		1.90
	%Si	%P	%S	%Cu	FN
Requirements AWS ER310	0.30 - 0.65	0.03 max.	0.03 max.	0.75 max.	Not Required
Typical Performance Techalloy® 310	0.40	0.01	0.003	0.04	

TYPICAL OPERATING PROCEDURES

Process	Diameter in (mm)	Voltage (volts)	Amperage	Gas Flow	Gas
MIG	0.035 (0.9) 0.045 (1.2) 1/16 (1.6)	26-29 28-32 29-33	160-210 180-250 200-280	30-50 CFH	98/99% Argon + 2/1% Oxygen 97% Argon + 3% CO ₂
TIG	1/16 (1.6) 3/32 (2.4) 1/8 (3.2)		90-130 120-175 150-220	20-40 CFH	100% Argon
SAW	1/16 (1.6) 3/32 (2.4)	28-33	275-350		Lincolnweld® P2007

Material Safety Data Sheets (MSDS) are available on our website at www.techalloy.com

TEST RESULTS

Test results for mechanical properties, deposit or electrode composition and diffusible hydrogen levels were obtained from a weld produced and tested according to prescribed standards, and should not be assumed to be the expected results in a particular application or weldment. Actual results will vary depending on many factors, including, but not limited to, weld procedure, plate chemistry and temperature, weldment design and fabrication methods. Users are cautioned to confirm by qualification testing, or other appropriate means, the suitability of any welding consumable and procedure before use in the intended application.

CUSTOMER ASSISTANCE POLICY

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