

Techalloy[®] 320LR

AWS ER320LR

CONFORMANCES

AWS A5.9 ER320LR

UNS N08022



Techalloy[®] 320LR electrodes are typically used for welding base metals with similar compositions including alloy 20.

Applications: Tanks, Process piping, Heat exchangers for the chemical processing industry

DIAMETERS / PACKAGING

Diameter in (mm)		MIG WIRE 33 lb (14.9 kg) Wire Basket	TIG 10 lb (4.5 kg) Tube 30 lb (13.6 kg) Master Carton	SAW WIRE 55 lb (25 kg) Coil
0.035	(0.9)	MG320LR035667		
0.045	(1.2)	MG320LR045667		
1/16	(1.6)	MG320LR062667	TG320LR062638	
3/32	(2.4)		TG320LR093638	SA320LR093726
1/8	(3.2)		TG320LR125638	

DEPOSIT COMPOSITION

	%C	%Cr	%Ni	%Mo	%Mn
Requirements AWS ER320LR	0.025 max.	19.0 - 21.0	32.0 - 36.0	2.0 - 3.0	1.5 - 2.0
Typical Performance Techalloy® 320LR	0.003	20.1	33.3	2.4	1.7
	%Si	%P	%S	%Cu	%Nb
Requirements AWS ER320LR	0.15 max.	0.015 max.	0.02 max.	3.0 - 4.0	Required 8 x C / 1.0 max.
Typical Performance Techalloy® 320LR	0.01	0.010	0.001	3.3	0.22

TYPICAL OPERATING PROCEDURES

Process	Diameter in (mm)	Voltage (volts)	Amperage	Gas Flow	Gas
MIG	0.035 (0.9)	26-29	160-210	30-50 CFH	98/99% Argon + 2/1% Oxygen 97% Argon + 3% CO ₂
	0.045 (1.2)	28-32	180-250		
	1/16 (1.6)	29-33	200-280		
TIG	1/16 (1.6)		90-130	20-40 CFH	100% Argon
	3/32 (2.4)		120-175		
	1/8 (3.2)		150-220		
SAW	3/32 (2.4)	29-32	350-450		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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