



# Techalloy 320LR

## Description

Techalloy 320LR has a composition similar to 320, except that carbon, silicon, phosphorus and sulfur levels are kept at lower levels as well as the niobium and manganese being specified at a narrower range. The low melting residuals are limited in this alloy to reduce the possibility of micro-fissuring. It is for this reason that this alloy is often used for welding Type 320 stainless steels.

## Specifications & Approvals

AWS A5.9 ER320LR

UNS N08022

CWB

## Typical Chemical Composition

C	Mn	Si	Cr	Mo	Ni	Nb	N	S	P	Cu	FN (WRC)
.025	1.6	.05	19.6	2.5	34.1	.25		.001	.007	3.4	0

## Typical Mechanical Properties

Tensile Strength	86,000 PSI	590 MPA
Yield Strength	57,500 PSI	400 MPA
Elongation	35%	

## Welding Parameters

	Shielding	Gas Flow	Diameter	Voltage	Amperage
Mig Welding	98/99% Argon + 2/1% Oxygen 97% Argon + 3% CO2	30 to 50 CFH	.035" (0.9mm)	26 to 29	160/210
			.045" (1.14mm)	28 TO 32	180/250
			.062" (1.6mm))	29 TO 33	200/280
Tig Welding	100% Argon				
Sub Arc Welding	Suitable flux may be used		3/32" (2.5mm)	28 to 33	275/350
			1/8" (3.14mm)	29 TO 32	350/450
			5/32" (4.0mm)	30 TO 33	400/550

## Standard Packages:

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