



# Tech-Rod 316/316L

## Description

The weld deposit of Tech-Rod 316L electrodes is similar to that of type 316, except carbon levels are limited to a maximum of 0.04%. Precise control of the carbon content in Tech-Rod 316/316L electrodes provides a weld deposit matching the corrosion resistant qualities of type 316/316L stainless steel. The low carbon content reduced the possibility of carbide precipitation and consequent inter-granular corrosion.

## Specifications & Approvals

AWS A5.4 E316/316L-16

UNS W31613

ISO 3581:2003 (19 12 2)

ISO 3581:2003 (19 12 3 L)

CWB

ASME QSC-395

## Typical Chemical Composition

C	Mn	Si	Fe	Cr	Mo	Ni	Nb	N	S	P	Cu	FN (WRC)
.035	1.75	.52	BAL	18.70	2.3	12.65		*	.022	.024		7

\* Nitrogen in these weld deposits is usually between .04% and .08%

## Typical Mechanical Properties

Tensile Strength	85,800 PSI	590 MPA
Yield Strength	58,000 PSI	400 MPA
Elongation	36%	

## Welding Parameters

Process	Diameter x Length	Voltage	Amperage	
			Flat	Vertical & Overhead
SMAW	3/32" (2.4mm) x 12" (305mm)	24-28	70-85	65-75
	1/8" (3.2mm) x 14" (355mm)	26-30	85-110	80-90
	5/32" (4.0mm) x 14" (355mm)	28-32	110-140	100-120
	3/16" (4.8mm) x 14" (355mm)	28-32	120-160	110-130

## Standard Packages:

3/32" Diameter	8 Lb (3.6Kg) Can	24 Lb (10.9Kg) Master Carton	26 Electrodes per Lb
1/8" Diameter	10 Lb (4.5Kg) Can	30 Lb (13.6Kg) Master Carton	14 Electrodes per Lb
5/32" Diameter	10 Lb (4.5Kg) Can	30 Lb (13.6Kg) Master Carton	9 Electrodes per Lb
3/16" Diameter	10 Lb (4.5Kg) Can	30 Lb (13.6Kg) Master Carton	6 Electrodes per Lb