



Tech-Rod 320LR

Description

Tech-Rod 320LR is similar in composition to Tech-Rod 320, with carbon, silicon, phosphorus and sulfur controlled to lower limits and niobium and manganese kept to a narrower range. This composition is designed to reduce the possibility of micro-fissuring; however, low heat input is advisable for welding.

Specifications & Approvals

AWS A5.4 E320LR-16

UNS W88022

CWB

ASME QSC-395

Typical Chemical Composition

C	Mn	Si	Fe	Cr	Mo	Ni	Nb	N	S	P	Cu	FN
.024	2.05	.24	BAL	19.80	2.4	33.90	.27	*	.011	.014	3.5	0

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

Typical Mechanical Properties

Tensile Strength	85,000 PSI	590 MPA
Yield Strength	57,000 PSI	390 MPA
Elongation	34%	

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