



# Tech-Rod 385

## Description

Tech-Rod 385 is used for welding materials of similar chemical composition (UNS Number N08904). These materials are used in fabrication of equipment and vessels for handling and storage of sulfuric acid and phosphoric acid. The weld metal is fully austenitic and, as such, the low melting constituents such as carbon, silicon and phosphorus should be kept low. Welding must be done with low heat input, using a stringer beat technique.

## Specifications & Approvals

AWS A5.4 E385-16      UNS W88904      ISO 3581:2003 (20 25 5 Cu N L)  
 CWB      ASME QSC-395

## Typical Chemical Composition

C	Mn	Si	Fe	Cr	Mo	Ni	Nb	N	S	P	Cu	FN
.015	2.1	.45	BAL	20.50	4.60	25.20		*	.009	.018	1.7	0

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

## Typical Mechanical Properties

Tensile Strength	88,000 PSI	610 MPA
Yield Strength	65,500 PSI	450 MPA
Elongation	32%	

## 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