

Oxford Alloy® 385-16

AWS E385-16 • Stainless Steel



Key Features

- ❖ For welding materials of similar chemical composition (Type 904L).
- ❖ 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 must be done with low heat input, using a stringer bead technique.

Conformances

AWS/ASME SFA 5.4

E385-16

UNS W88904

Chemical Composition - As required per AWS 5.4

C	Cr	Ni	Mo	Mn	Si	P
0.03 max	19.5- 21.5	24.0- 26.0	4.2- 5.2	1.0- 2.5	0.9 max	0.03 max
S	Cu					
0.02 max	1.2- 2.0					

Mechanical Properties - As required by AWS 5.4

	Tensile Strength MPa (ksi)	Yield Strength MPa (ksi)	Elongation %
AWS Requirements	520 (75) min	Not specified	30 min
Typical Results - As welded	610 (88)	450 (65)	32

Typical Welding Parameters

Diameter		Process	Volt	Amps (flat)	Amps (V/OH)
in	(mm)				
3/32	(2.4)	SMAW	24-28	70-85	65-75
1/8	(3.2)	SMAW	26-30	85-110	80-90
5/32	(4.0)	SMAW	28-32	110-140	100-120
3/16	(4.8)	SMAW	28-32	120-160	110-130

Diameters & Packaging

Oxford Alloys USA			Oxford Alloys Asia Pacific		
Diameter (in)	Length (in)	Packaging (lbs)	Diameter (mm)	Length (mm)	Packaging (kgs)
3/32"	12	10 lb tube 30 lb carton	2.6	300	4 kg tube 12 kg carton
1/8"	14	10 lb tube 30 lb carton	3.2	350	5 kg tube 15 kg carton
5/32"	14	10 lb tube 30 lb carton	4.0	350	5 kg tube 15 kg carton
3/16"	14	10 lb tube 30 lb carton	5.0	350	5 kg tube 15 kg carton

Actual test results may vary. Refer test result disclaimer on page 160.