

COATED ELECTRODES

Oxford Alloy® 630-16

AWS E630-16 • Stainless Steel

Key Features

- ❖ A precipitation hardening stainless steel covered electrode used for welding materials of similar chemical composition such as 17-4 and 17-7.
- ❖ Can be used in the as welded condition or may be heat treated to obtain higher strength.
- ❖ Mechanical properties of the alloy are greatly influenced by the heat treatment.

Conformances

AWS/ASME SFA 5.4

E630-16

UNS W37410



Chemical Composition - As required per AWS 5.4						
C	Cr	Ni	Mn	Si	P	S
0.05 max	16.00-16.75	4.5-5.0	0.25-0.75	0.75 max	0.04 max	0.03 max
Cu	Mo	Nb+Ta				
3.25-4.00	0.75 max	0.15-0.30				

Mechanical Properties - As required by AWS 5.4			
	Tensile Strength MPa (ksi)	Yield Strength MPa (ksi)	Elongation %
AWS Requirements	930 (135) min	Not specified	7 min
Typical Results - As welded	1030 (149)	920 (133)	10

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.