

COATED ELECTRODES

Oxford Alloy[®] 7018-A1

AWS E7018-A1 • Mild Steel



Key Features

- ❖ Recommended for welding low-alloy, high tensile steels of 50 ksi (345 MPa) minimum yield strength, and also the 0.50% Molybdenum steels.
- ❖ Commonly used in the fabrication and erection of boilers, pressure piping and tubing, and other pressure vessel applications.

Conformances

AWS ASME SFA 5.5
E7018-A1
UNS W17018

Chemical Composition - As required per AWS 5.5

C	Mn	Si	P	S	Mo
0.12 max	0.90 max	0.80 max	0.03 max	0.03 max	0.40-0.65

Mechanical Properties - As required by AWS 5.5

	Tensile Strength MPa (ksi)	Yield Strength MPa (ksi)	Elongation %
AWS Requirements	490 (70) min	390 (57) min	22 min
Typical Results - As welded	680 (99)	590 (86)	28

Typical Welding Parameters

Diameter		Process	Volt	Amps (flat)	Amps (V/OH)
in	(mm)				
3/32	(2.4)	SMAW	21-25	65-80	65-75
1/8	(3.2)	SMAW	21-25	90-110	80-95
5/32	(4.0)	SMAW	21-26	135-160	120-140
3/16	(4.8)	SMAW	22-26	160-210	140-160

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.