

COATED ELECTRODES

Oxford Alloy® 7018

AWS E7018 • Mild Steel

Key Features

- ❖ All position iron powdered low hydrogen electrode which exhibits excellent mechanical properties, crack resistance and X-ray quality.
- ❖ Smooth, quiet arc, very low spatter and medium arc penetration.
- ❖ Easy strike and re-strike, effortless slag removal.

Conformances

AWS/ASME SFA 5.1
E7018
UNS W07018

Chemical Composition - As required per AWS 5.1

C	Mn	Si	P	S	Ni	Cr
0.15 max	1.60 max	0.75 max	0.035 max	0.035 max	0.30 max	0.20 max
Mo	V	Combined Limit for Mn+Ni+Cr+Mo+V				
0.30 max	0.08 max	1.75 max				

Mechanical Properties - As required by AWS 5.1

	Tensile Strength MPa (ksi)	Yield Strength MPa (ksi)	Elongation %
AWS Requirements	490 (70) min	400 (58) min	22 min
Typical Results - As welded	585 (85)	520 (74)	29



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.