Oxford Alloy® A

AWS ENiCrFe-2 • Nickel Alloys

Key Features

- Used for welding of nickel-chromium-iron alloys to themselves as well as for dissimilar welding between various nickel alloys to a steel or stainless steels.
- Overlay cladding where a similar composition is needed.
- Diverse applications ranging from cryogenic temperature up to 1500°F.

Conformances

AWS/ASME SFA 5.11
ENiCrFe-2
UNS W86133

Chemical Composition - As required per AWS 5.11						
Ni	**C**	**Mn**	**Fe**	**S**	**Si**	**Cu**
62.0 min	0.10 max	1.0-3.5	12.0 max	0.02 max	0.75 max	0.50 max
Cr	**Nb+Ta**	**Mo**	**P**	**OET**		
13.0-17.0	0.5-3.0	0.5-2.5	0.03 max	0.50 max		

Mechanical Properties - As required by AWS 5.11			
	Tensile Strength MPa (ksi)	Yield Strength MPa (ksi)	Elongation %
AWS Requirements	55 (80) min	Not Specified	30 min
Typical Results - As welded	610 (88)	500 (73)	36

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.