

## Oxford Alloy<sup>®</sup> 4043

AWS ER4043 • Aluminum



### Key Features

- ❖ A 5% silicon aluminum recommended for welding 3003, 3004, 5052, 6061, 6063 and casting alloys 43, 355, 356 and 214.
- ❖ Has a melting range of 1065 - 1170°F and a density of .097 lbs./cu. in. The post-anodizing color tint of the weld area is gray.

### Conformances

AWS/ASME SFA 5.10  
ER4043  
UNS A94043

Chemical Composition - As required per AWS 5.10						
Si	Fe	Cu	Mn	Mg	Zn	Ti
4.5-6.0	0.8 max	0.30 max	0.05 max	0.05 max	0.10 max	0.20 max
OEE	OET	Al				
0.05 max	0.15 max	Bal				

Mechanical Properties - As required by AWS 5.10			
	Tensile Strength MPa (ksi)	Yield Strength MPa (ksi)	Elongation %
AWS Requirements	Not Specified		
Typical Results - As welded	190 (27)	125 (18)	8

Typical Welding Parameters					
Diameter		Process	Volt	Amps	Shielding Gas
in	(mm)				
.035	0.9	GMAW	22-28	100-175	Spray Transfer 100% Argon
.045	1.2	GMAW	22-28	120-210	
1/16	1.6	GMAW	24-30	160-300	
.035	0.9	GMAW	17-19	50-150	Short Circuiting Transfer 100% Argon
.045	1.2	GMAW	16-20	60-175	
1/16	1.6	GMAW	16-20	60-175	
1/16	1.6	GTAW		60-100	100% Argon
3/32	2.4	GTAW		125-160	100% Argon
1/8	3.2	GTAW		180-240	100% Argon

Diameters & Packaging							
Oxford Alloys USA				Oxford Alloys Asia Pacific			
Diameter (in)	Form	Quantity (lbs)	Spool Dimension	Diameter (mm)	Form	Quantity (kgs)	Spool Dimension
.035	GMAW	16 lb	12 inch	0.9	GMAW	7 kg	300mm
.045	GMAW	16 lb	12 inch	1.2	GMAW	7 kg	300mm
1/16	GMAW	16 lb	12 inch	1.6	GMAW	7 kg	300mm
.035	GMAW	1 lb	4 inch	0.9	GMAW	0.5 kg	100mm
.045	GMAW	1 lb	4 inch	1.2	GMAW	0.5 kg	100mm
1/16	GMAW	1 lb	4 inch	1.6	GMAW	0.5 kg	100mm
1/16	GTAW	10 lb tube		1.6	GTAW	5 kg tube	
3/32	GTAW	10 lb tube		2.4	GTAW	5 kg tube	
1/8	GTAW	10 lb tube		3.2	GTAW	5 kg tube	