# Oxford Alloy® Ti-5

## AWS ERTi-5 • Titanium

**Key Features**

- Used for welding 6% Aluminum – 4% Vanadium alloys. Commonly referred to as 6AL/4V
- The weld deposits of exhibit high fatigue strength, toughness, ductility and are heat treatable.
- Widely used in the cryogenic, petrochemical and aircraft industry.


**Conformances**

AWS/ASME SFA 5.16
ERTi-5
UNS R56402

| **Chemical Composition** - As required per AWS 5.16 | | | | | | |
|---|---|---|---|---|---|---|
| **C** | **O** | **H** | **N** | **Al** | **V** | **Fe** |
| 0.05 max | 0.12-0.20 | 0.015 max | 0.03 max | 5.5-6.75 | 3.5-4.5 | 0.22 max |
| **Ti** | | | | | | |
| Bal | | | | | | |

| **Mechanical Properties** - As required by AWS 5.16 | | | |
|---|---|---|---|
| | Tensile Strength MPa (ksi) | Yield Strength MPa (ksi) | Elongation % |
| AWS Requirements | Not Specified | | |
| Typical Results - As welded | 895 (130) | 830 (120) | 10 |

| **Typical Welding Parameters** | | | | | |
|---|---|---|---|---|---|
| **Diameter** | | **Process** | **Volt** | **Amps** | **Shielding Gas** |
| **in** | **(mm)** | | | | |
| 1/16 | 1.6 | GTAW | 16 | 180 | 100% Argon |
| 3/32 | 2.4 | GTAW | 17 | 190 | 100% Argon |
| 1/8 | 3.2 | GTAW | 19 | 205 | 100% Argon |

| **Diameters & Packaging** | | | | | |
|---|---|---|---|---|---|
| **Oxford Alloys USA** | | | **Oxford Alloys Asia Pacific** | | |
| **Diameter (in)** | **Form** | **Packaging (lbs)** | **Diameter (mm)** | **Form** | **Packaging (kgs)** |
| 1/16 | GTAW | 5 lb tube \| 20 lb carton | 1.6 | GTAW | 2 kg tube \| 8 kg carton |
| 3/32 | GTAW | 5 lb tube \| 20 lb carton | 2.4 | GTAW | 2 kg tube \| 8 kg carton |
| 1/8 | GTAW | 5 lb tube \| 20 lb carton | 3.2 | GTAW | 2 kg tube \| 8 kg carton |

Actual test results may vary. Refer test result disclaimer on page 160.