

## AI-0606E

### Specifications

**AWS/ASME II C SFA 5.21: ECoCr-A**

### Description and Applications

**AI-0606E** is a cobalt-based Alloy 6 rutile coated electrode for surfacing parts subject to either the single or combined effect of medium abrasion or metal-to-metal wear, and/or temperatures from 500°C to 800°C in corrosive media. This alloy is typically used for service conditions involving heavy impact and thermal shocks.

**Applications include:** hot shear blades, valves (slurry, exhaust, metering etc.), mill side guide rolls, ingot tong ends, seats, and nozzles.

### Typical Weldmetal Analysis

C	Mn	Si	Cr	Ni	Fe	W	Co	Mo
1.1	0.5	0.8	29	0.3	2.5	4.5	Bal	0.1

### Mechanical Properties of Weldmetal

	As Welded
Hardness	42-48HRc 310HV at 500°C 250HV at 700°C
Metal-to-metal wear resistance	Excellent
Shock resistance	Low to moderate
High temperature resistance	Excellent
Thermal Shock Resistance	Moderate
Abrasion resistance	Good
Machineability	Good

### Welding Parameters

Diameter (mm)	Current type	Amps
2.5	DC /AC	90-120
3.2	DC /AC	120-140
4.0	DC /AC	140-160
5.0	DC /AC	160-180

### Available Forms

Bare/TIG rods: **AI-0606B**

MIG wire: **AI-1706**

MIG Wire (low carbon): **AI-1706L**

Arc spray wire: **AI-1806**

PTA/Laser cladding powder: **AI-2006**

HVOF powder: **AI-2606**



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