

## AI-0621E

### Specifications

**AWS/ASME II C SFA 5.21 ECoCr-E**

### Description and Applications

**AI-0621E** is a cobalt-based Alloy 21 rutile coated electrode designed for surfacing parts subject to the single or combined effects of metal-to-metal wear at high temperatures with repeated thermal cycling, friction, abrasion, high impact oxidation and corrosion up to temperatures of 1150°C.

**Applications include:** Hot shear blades, Forging Bottom Dies, Cutting discs, Hot working tools, Wear Pads, Steam Valves, Seats and spindles, Ingot Bloom and Billet Holders. Deposit has the added benefit of being machinable.

### Typical Weldmetal Analysis

C	Mn	Si	Cr	Ni	Co	Mo
0.25	0.70	0.55	28	2.5	Bal	5.5

### Mechanical Properties of Weldmetal

	As Welded
Hardness	44-48HRc (after work hardened) 32HRc as welded
Metal-to-metal wear resistance	Very good
Shock resistance	Excellent
High temperature resistance	Excellent
Thermal Shock Resistance	Exceptional
Machineability	Good

### Nominal Hot Hardness (DPH) of undiluted weld deposit

20°C	100°C	200°C	300°C	400°C	500°C	600°C	700°C	800°C	900°C
347	279	248	228	208	197	181	153	123	92

### Welding Parameters

Diameter (mm)	Current type	Amps
2.5	DC /AC	90-120
3.2	DC /AC	120-150
4.0	DC /AC	150-180



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#### Available Forms

Bare/TIG rods: AI-0621B

MIG wire: AI-1721

Arc spray wire: AI-1821

PTA/Laser cladding powder: AI-2021

HVOF powder: AI-2621

Castings, billets, HIP'ed castings.

#### Disclaimer

All figures in this datasheet should be considered indicative only. No guarantee is made as to their accuracy.

All figures subject to change without notice. Batch analysis is available for all products sold. Should you require any further information, please contact us at [sales@alloysint.com.au](mailto:sales@alloysint.com.au)



