

## AI-1701

### Specifications

**AWS/ASME SFA 5.13 E: CO CR-C**

### Description and Applications

Cobalt based surfacing alloy particularly suited for surfacing parts subject to either the single or combined effect of medium abrasion and metal-to-metal wear, temperatures from 500°C- 800°C, corrosive media.

**Applications include:** rolling mill guides, pump bushes and spindles, steam turbine parts, extrusion dies, plastics extruder screws and scrapers.

### Typical Weldmetal Analysis

C	Mn	Si	Cr	Fe	W	Co
2.77	0.70	3.80	27.30	3.00	11.10	Bal

### Mechanical Properties of Weldmetal

	As Welded
Shock Resistance	Low to Moderate
Metal-to-Metal Wear Resistance	Excellent
Abrasion Resistance	Very Good
High Temperature Resistance	Excellent
Thermal Shock Resistance	Moderate
Hardness	56HRc 37HRc (at 500°C)
Machineability	Grinding

### Welding Instructions

Spray Transfer: 30V-250A  
Pulse Arc: 25V-180A

### Welding Parameters

Diameter (mm)	Current type	Amps
1.2	DC(+)	150-220
1.6	DC (+)	180-300

Also available as Coated Electrodes **AI-0601E**, Bare Rod **AI-0601B**

### Welding Positions

(1G, 1F) Downhand/flat position, (2F) Horizontal position, (2G) Horizontal vertical position

### 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)



**ALLOYS INTERNATIONAL PTY LTD**  
25 Raymond Road Laverton North Victoria 3026  
Telephone: +61 3 8368 2222 | Facsimile: +61 3 8368 2200

**ABN 53 112 712 286**

[sales@alloysint.com.au](mailto:sales@alloysint.com.au) | [www.alloysint.com.au](http://www.alloysint.com.au)