

AI-0612E

Specifications

AWS/ASME II C SFA 5.21: ECoCr-B

Description and Applications

AI-0612E is a cobalt-based Alloy 12 rutile coated electrode. Particularly suited for surfacing parts subject to either the single or combined effect metal-to-metal wear, and/or temperatures from 500°C to 800°C in corrosive media.

Applications include: Tools for cutting wood, paper, board, carpet and plastic.

Typical Weldmetal Analysis

| C | Cr | W | Co |
|-----|----|-----|-----|
| 1.4 | 31 | 8.4 | Bal |

Mechanical Properties of Weldmetal

| | As Welded |
|--------------------------------|-------------------------|
| Hardness | 48HRc 32HRC at 500°C |
| Metal-to-metal wear resistance | Excellent |
| Shock resistance | Medium |
| High temperature resistance | Excellent |
| Thermal Shock Resistance | Moderate |
| Abrasion resistance | Good |
| Machineability | Machineable with care |

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 |

Available Forms

Bare/TIG rods: **AI-0612B**

MIG wire: **AI-1712**

Arc spray wire: **AI-1812**

PTA/Laser cladding powder: **AI-2012**

HVOF powder: **AI-2612**

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



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