

AI-1712

Specifications

AWS/ASME SFA 5.21 ERC Co Cr - B

Description and Applications

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

Applications include: tools for cutting wood, papers, cardboard, carpet, plastic etc.

Typical Weldmetal Analysis

C	Mn	Si	Cr	Fe	W	Co
1.60	1.00	1.00	27.00	3.00	8.00	Bal

Mechanical Properties of Weldmetal

	As Welded
Shock Resistance	Medium
Metal-to-Metal Wear Resist	Excellent
Abrasion Resistance	Good
High Temperature Resist	Excellent
Thermal Shock Resistance	Medium
Machineability	Difficult
Hardness	48HRc
	500°C 32HRc

Welding Parameters

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

Spray Transfer: 30V-250 A
Pulse Arc: 25V-180 A
Shielding Gas: 98Ar+2O₂ or 100% Ar

Welding Positions

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



Available Forms

Bare/TIG Rod AI-0612B

Coated Electrode AI-0612E

Arc Spray Wire AI-1812

PTA / Laser Powder AI-2012

Flame spray powder AI-2112

HVOF Powder AI-2612

Castings, HIP'ed castings, wrought products and sheet

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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