

Bare Wire Cobalt

Alloy: WWCobalt #1 Bare Wire / Rod
Conforms to Certification: AWS A5.21 ASME SFA A5.21
Class: ERCoCr-C

Alloy: ERCoCr-C

Weld Process: GTAW (tig)

AWS Chemical Composition Requirements

C = 2.0 - 3.0	Mo = 1.0 max
Mn = 1.0 max	Fe = 3.0 max
Si = 2.0 max	W = 11.0 - 14.0
Cr = 26 - 33	Co = Remainder
Ni = 3.0 max	Other = 0.50 max

Deposited Chemical Composition % (Typical)

C = 2.4	Mo = 0.10
Mn = 0.06	Fe = 2.3
Si = 1.2	W = 12.2
Cr = 31.0	Co = Balance
Ni = 2.2	

Deposited All Weld Metal Properties % (AW)

Hardness (2 layer)	HRC	53 – 54
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Deposited Charpy-V-Notch Impact Properties %

Not Applicable

Recommended Operation of Welding Rods

GTAW (tig)

<u>Diameter</u>	<u>Amps DCEN</u>	<u>Volts</u>	<u>Shielding Gas</u>
1/8	90 – 120	20 – 40	argon
5/32	120 – 140	20 – 40	argon
3/16	140 – 180	20 – 40	argon

Application

Type #1bare wire/rod has the highest hardness of the cobalt alloys and is used to elevate temperature wear applications. Machine with carbide tools or grinding. It bonds well with stainless and other weldable grades of steel.

