

Bare, Coated & Flux-cored Cobalt

Alloy: WWCobalt #1 Coated Electrode

Conforms to Certification: AWS A5.13 ASME SFA A5.13

Class: ECoCr-C

Alloy: ECoCr-C

Weld Process: Shielded Metal Arc

AWS Chemical Composition Requirements

C = 1.7 - 3.0	Mo = 1.0 max
Mn = 2.0 max	Fe = 5.0 max
Si = 2.0 max	W = 11.0 - 14.0
Cr = 25 - 33	Co = Remainder
Ni = 3.0 max	Other = 1.0 max

Deposited Charpy-V-Notch Impact Properties %

Not Applicable

Recommended Operation of Welding Rods

Flat Welding

Deposited Chemical Composition % (Typical)

C = 2.1	Mo = 0.1
Mn = 0.1	Fe = 2.3
Si = 0.9	W = 12.1
Cr = 29.6	Co = Balance
Ni = 1.9	

DiameterAmps DCEP

1/8	90 - 120
5/32	135 - 180

Application

Type #1 (ECoCr-C) is the highest hardness standard alloy in the group of cobalt alloys used for elevated temperature abrasive wear associated with corrosion. Deposits of this alloy have a large volume of chromium carbides that impart outstanding abrasive wear resistance. The addition of tungsten enhances high temperature hardness and matrix toughness for excellent adhesive and solid particle erosion wear resistance. It bonds well with all steels including stainless.

Deposited All Weld Metal Properties % (AW)

Hardness (2 layer)	HRC	46 - 50
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