

Eureka Welding Alloys

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INTRODUCTION

Eurekalloy X Electrode is a Cobalt base, hard facing filler metal that conforms to AMS.5385. The electrodes can be welded at low amperages, which reduces penetration and dilution. The electrodes have low spatter and the slag is self-detaching. The weld deposits have good wet out. This gives a flat smooth surface to machine.

METALLURGICAL CHARACTERISTICS

Chemical Composition Range for Eurekalloy X

C:	0.20 – 0.30
Mn:	1.00 max.
Si:	1.00 max.
Cr:	25.50 – 29.00
Mo:	5.00 – 6.00
W:	.050 max.
Fe:	2.00 max.
Ni:	1.75 – 3.25
Co:	Balance

The room temperature hardness of **Eurekalloy X** (undiluted weld metal) is typically 30 - 35 HRC. This alloy is most noted for resistance to softening at elevated temperatures. Hot hardness values of 22 HRC are maintained at 1200°F. This alloy displays good abrasion resistance due to the moderate carbide formation and its work hardening abilities. The metal to metal wear is outstanding due to the low coefficient of friction because of its ability to take a high polish. The large addition of Chromium imparts good oxidation and corrosion resistance up to 1800°F. The impact resistance and machinability of this alloy is generally considered good.

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RECOMMENDED APPLICATIONS

Commonly used on press forging dies, hot trimming, punching and shearing dies, extrusion dies, and dummy blocks. Also used in high pressure, high temperature and corrosive environments.

***Note:** Tempering does not affect hardness of Eureka alloy "X" weld deposits. This step aids in tempering the H.A.Z. and parent metal only!!!.

WELDING PARAMETERS

- Use either alternating current or direct current reverse polarity. Hold closest arc as possible.

Size	Amperage
1/8" – 3.2 mm	80 – 110
5/32" – 4.0 mm	120 – 170
3/16" – 5.0 mm	140 – 190
1/4" – 6.4 mm	180 – 250

Use lowest possible amperage

AVAILABILITY

Size	Size mm	Standard Package
3/32" x 14"	2.4 mm x 354 mm	10 lbs.
1/8" x 14"	3.2 mm x 354 mm	10 lbs.
5/32" x 14"	4.0 mm x 354 mm	10 lbs.
3/16" x 14"	4.8 mm x 354 mm	10 lbs.
1/4" x 14"	6.4 mm x 354 mm	10 lbs.