

# Eureka Welding Alloys

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## TECHNICAL DATA FOR EUREKA EXP-10 ELECTRODE

**Dated:** March 31, 1995

**Revised:** July 8, 2013

## INTRODUCTION

**Eureka EXP-10 Electrode** is a smooth running basic coated stick electrode for welding on cast iron. The electrodes are designed for superior weldability having no spatter, a stable arc, good wet out, and easy slag removal.

## METALLURGICAL CHARACTERISTICS

**Eureka EXP-10 Electrodes** deposits are designed to form an austenitic band over the cast iron in one layer. The alloy in multiple layers is sufficiently hard enough to work on the noncritical areas of the die. The hardness of pure weld metal is 35-40 HRC. Where additional hardness is required **Eureka EXP-10** provides an excellent underlay.

## RECOMMENDED APPLICATIONS

**Eureka EXP-10 Electrodes** is mainly used as an underlay on cast iron. The first layer of **EXP-10** on cast iron is soft and crack free. This makes for a good base for a hard alloy overlay. Eureka EXP-10 is commonly used for the repair and reclamation of all grades of nodular and grey cast irons in any heat treated condition. It is used on automotive cast iron draw dies, punches and binder rings. The alloy is good for engineering changes and repair of slug marks. It is NOT recommended for joining.

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## WELDING PARAMETERS

SIZE	AMPERAGE RANGE
3/32" 2.4mm	70 – 120
1/8" 3.2mm	100 – 140
5/32" 4.0mm	140 – 170
3/16" 4.8mm	170 – 225
1/4" 6.35mm	225 – 300
5/16" 7.94mm	300 – 375
3/8" 9.5mm	350 – 425

## TYPICAL CHEMISTRY

C	Mn	Si	Cr	Ni	Mo
.10	1.0	.60	5.0	10.0	1.0

## PHYSICAL AND OR MECHANICAL PROPERTIES

### AS WELDED HARDNESS

35-40 HRC

First Layer on Cast Iron: 20HRC