

# Eureka Welding Alloys

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## TECHNICAL DATA FOR EUREKA COLORMOLD ELECTRODE

**Dated:** March 31, 1995

**Revised:** July 8, 2013

## INTRODUCTION

**Eureka Colormold Electrode** is a smooth running basic coated stick electrode with low alloy chemistry. The electrodes are designed for superior weldability having no spatter, a stable arc, good wet out, and easy slag removal.

## METALLURGICAL CHARACTERISTICS

**Eureka Colormold Electrodes** weld deposits are a low alloy (chrome/moly) which is similar in chemistry to P-20, except that Carbon levels are intentionally held low to obtain hardness values in the low 25-35 HRC range as welded. At this hardness level, the deposits have the similar etching, graining, and color match characteristics as P-20 in the low 30 HRC range.

## RECOMMENDED APPLICATIONS

**Eureka Colormold Electrodes** is used to repair many types of P-20 tools and dies, whether they are die casting dies or plastic injection molds. It is often used for high strength joining of low alloy steels and Chrome Moly steels.

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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   | Mo  |
|-----|-----|-----|------|-----|
| .08 | .55 | .55 | 1.35 | .50 |

## PHYSICAL AND OR MECHANICAL PROPERTIES

### AS WELDED HARDNESS

25-35 HRC

**TENSILE STRENGTH** 90,000 psi

**YIELD STRENGTH** 75,000 psi

**ELONGATION** 23%