

# Eureka Welding Alloys

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## TECHNICAL DATA FOR EUREKA 1216 TIG RODS

**Dated:** March 31, 1995

**Revised:** July 8, 2013

## INTRODUCTION

**Eureka 1216 TIG Rods** are drawn, straightened, cut to length, and then cleaned and packaged to obtain microscopically clean weld deposits. These rods are designed for the most critical applications where weld metal cleanliness is most important.

## METALLURGICAL CHARACTERISTICS

**Eureka 1216 TIG Rods** is an AISI M-2 molybdenum high speed steel tool alloy that has an as welded hardness 55–60 HRC. This alloy has extreme wear resistance and moderate impact resistance. Tempering the weld deposits at 1025 F results in a secondary hardness of 62 HRC and higher.

## RECOMMENDED APPLICATIONS

**Eureka 1216 TIG Rods** is recommended for welding AISI M-2 molybdenum high speed steel tools and other high speed tool steel grades. Typical applications encountered are trim steels, piercing punches, broaches, reamers, knives, drills, taps and shears. **Eureka 1216** is utilized in mainly high wear areas and also used on AISI D-2 where a complete heat treat cycle will be used.

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## **RECOMMENDED SHIELDING GASES**

**100% Argon**

## **GAS FLOW RATE**

**20-40 CFH**

## **TYPICAL CHEMISTRY**

| C   | Mn  | Si  | Cr  | Mo  | W   | V   |
|-----|-----|-----|-----|-----|-----|-----|
| .85 | .30 | .30 | 4.3 | 5.0 | 6.2 | 2.0 |

## **PHYSICAL AND OR MECHANICAL PROPERTIES**

### **AS WELDED HARDNESS**

**50-55 HRC**

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## TEMPERING DATA

The tempering data is to be used as a guide. Your results may differ due to the many variables in the utilization of this product.

### SINGLE TEMPER CURVE EUREKA 1216

