

Eureka Welding Alloys

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TECHNICAL DATA FOR EUREKA 1216 ELECTRODE

Dated: March 31, 1995

Revised: July 8, 2013

INTRODUCTION

Eureka 1216 Electrode is a smooth running rutile coated stick electrode with an AISI M-2 high speed steel chemistry. The electrodes are designed for superior weldability having no spatter, a stable arc, good wet out, and easy slag removal.

METALLURGICAL CHARACTERISTICS

Eureka 1216 Electrodes are 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 Electrodes are 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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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	W	V
.85	.30	.30	4.3	5.0	6.2	2.0

PHYSICAL AND OR MECHANICAL PROPERTIES

AS WELDED HARDNESS

55-60 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

