

Eureka Welding Alloys

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TECHNICAL DATA FOR EUREKA 1216 FLUX CORED WIRE

Dated: March 31, 1995

Revised: July 8, 2013

INTRODUCTION

Eureka 1216 Flux Cored Wire is a high speed steel filler metal. The wire has a smooth spray transfer arc with a thin slag system that is easily removable. The wire is formulated to develop high quality weld deposits that are porous and crack free. The wire is designed for multi-pass welding which greatly increases productivity.

METALLURGICAL CHARACTERISTICS

Eureka 1216 Flux Cored Wire 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 Flux Cored Wire 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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WELDING PARAMETERS

TYPE	SIZE	AMPERAGE	VOLTS
Metal Cored Wire	.045" 1.2 mm	125 – 225	16 – 28
Metal Cored Wire	1/16" 1.6mm	180 – 400	25 – 33
Flux Cored Wire	1/16" 1.6mm	180 – 400	25 – 33
Flux Cored Wire	3/32" 2.4mm	350 – 600	27 – 35
Flux Cored Wire	1/8" 3.2mm	500 – 900	30 – 38

Use DC Current with a Stick Out of
1/4" - 1 1/4" (6mm-32mm)

RECOMMENDED SHIELDING GASES

75% Argon, 25% Co2

90% Argon, 10% Co2

92% Argon, 8% Co2

100% CO2 may produce lower quality arc conditions

GAS FLOW RATE

.045" 1.2 mm 20-50 CFH

1/16" 1.6mm 30-60 CFH

3/32" 2.4mm 80-120 CFH

1/8" 3.2mm 80-120 CFH

TYPICAL CHEMISTRY

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

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PHYSICAL AND OR MECHANICAL PROPERTIES

AS WELDED HARDNESS

55-60 HRC

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

